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American Aviation

The Independent Voice of American Aeronautics

SEPTEMBER 1, 1946

Pooling Airport Facilities

FORTNIGHTLY REVIEW

ON RECENT travels about the country we have been more than ever impressed with the uneconomical use of personnel and ramp facilities at airports. Each airline must be staffed and equipped to service the maximum number of schedules it has at a peak period of the day or night and for extended periods of time these personnel and facilities are either idle or only partially used.

At airports serving a number of carriers, there are few times of the 24-hour period when all of the carriers have schedules arriving and departing, with

the result that there is congestion for a few carriers when others are idle.

Ground servicing costs have risen to such an extent (and show no signs of leveling off) that the airlines are faced with a problem more critical than ever in the efficient handling of passengers and servicing of airplanes.

The time has come for pooling of facilities at airports. If it is true, as we have been told on numerous occasions, that idle time of personnel at airports and of ramp equipment runs to over 50% in a 24-hour period, it would seem only sensible for the airlines to pool their resources at the airports and establish joint operating companies to attain a sorely-needed economy which, in turn, will benefit the airline passengers through ultimately lower fares. Or much more to the point, joint operation of terminal facilities might well avoid an increase in passenger fares which may become a necessity if costs continue to rise.

The day is over when the individual airlines can obtain competitive distinction by having their own ramp equipment and their own complete staffs of personnel at airports. There was a time when individuality counted for something. And it probably should be continued at small airports. But in the larger centers the public would be more impressed by consolidated ground service than with the present maze of individual ramp equipment and a confusion of personnel.

How much cost could be saved by joint operations is a moot point, but estimates have ranged as high as 50%. But even a 25% saving over present total terminal costs would be considerable and definitely worth while.

There are two alternatives to pooling. One would be the establishment of joint companies at the larger airports and have each company stand on its own. But a far better plan would be an entirely new national

(Turn to page 6)



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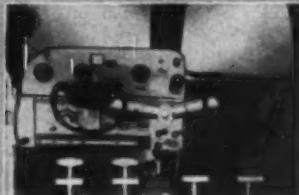
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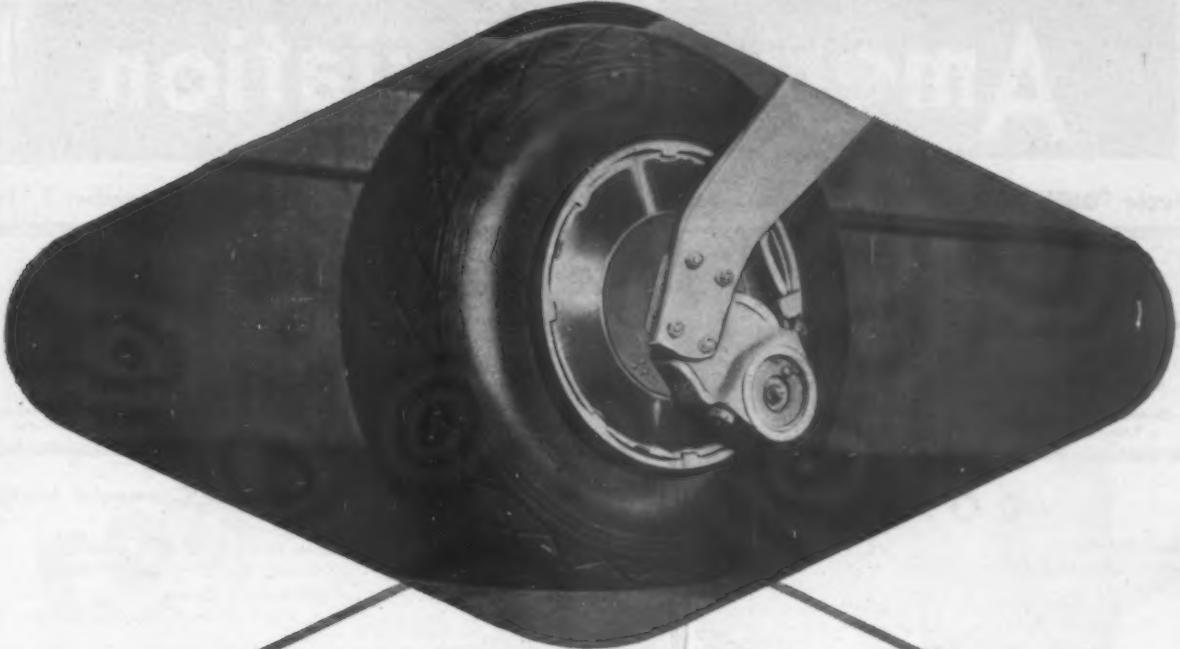


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Editorial

(Continued from Page 1)

terminal company, owned jointly by the airlines, to undertake a really big and constructive task of improving service from coast to coast. Such a company could well follow the pattern of Aeronautical Radio Corporation, a non-profit company owned and supported by all airlines to handle communication matters. Arinc's record as a service company has been outstanding. There is no reason why a jointly-owned terminal company couldn't be equally successful.

And isn't a terminal company a logical step toward the actual owning and operating of airport terminal buildings? It is clear that the municipalities are becoming more and more disturbed by the airport problem and the costs of maintaining the airports on a self-supporting basis. It is clear that local politics and the frequent changes of local administrations are going to be a costly headache to the airlines. It is also clear that municipalities are going to be painfully slow to exploit non-aviation revenues which should lower the direct burden of the airlines.

Admittedly the task of setting up a national terminal company is a big one and results would not be immediately forthcoming. But over a ten-year period a permanent pattern of well-run, efficient and economical terminals could be in operation with all of the non-aviation revenue potentials fully tapped. The airlines would save money, the cities would be relieved of a burden, and the airline patrons would be grateful.

The two major problems facing the airlines are all-weather flying so that reliability of schedules can be attained, and airports. Progress in achieving all-weather flying is being made. But the airport situation, as of today, shows little tangible sign of improvement. Whatever real solution is found must come from the airlines. A challenge is at hand.

Build Some Steamships

WHEN THE Shipbuilders Council of America objected when John R. Steelman, Reconversion Director, decided to halt the construction of two super-

liners, Mr. Steelman challenged American shipping interests to strengthen the American merchant marine by building ships "in which they are willing to invest their own capital."

The shipping interests, some of which are overly-anxious to enter air transportation in which they have shared no development costs, have been quite accustomed to all kinds of government subsidies and Mr. Steelman said significantly that the Maritime Commission is now engaged in a study to determine how much subsidy is now justified.

He said that if Congress intended that the Government should bear the whole cost of building ocean-going vessels and then "have these ships operated for Government account at heavy losses by an operator who would be paid a substantial fee for managing the ships as part of his subsidized service," it ought to say so.

Mr. Steelman's common-sense statement is a challenge to the shipping interests to risk some of their own capital in expanding the country's merchant marine, a field of opportunity which would seem to be sufficiently large in itself without also attempting to embrace another form of transportation.

Sleight of Hand

NO ONE CAN say that the steamship companies are lacking in a sense of ironic humor. Pan American Airways, the certificated and authorized carrier between New York and Puerto Rico, recently reduced its round-trip excursion fare between those points from \$235 to \$150, a reduction which was not only wholly within the company's rights but one which is beneficial to the travelers. And then came along Mr. Bon Geaslin, v.p. and general counsel for Waterman Steamship Corporation, who issued a press release accusing PAA of "monopolistic practices" because PAA had cut its fare below the level charged by Waterman in its charter airplane business. We expect anything from now on.

5c Air Mail

NOW THAT the cost of sending a one-ounce letter by air has been reduced by Congress from eight to five cents, a continued increased use of air mail by the public and business houses can be expected. The postage reduction is another step toward the time when all first class mail will go by air when the airplane provides the fastest service. It is a very constructive step forward, and one for which Robert Ramspeck, executive vice-president of the Air Transportation Association can take a great deal of well-deserved credit.

WAYNE W. PARRISH.

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Wings of Yesterday

15 Years Ago

Major James H. Doolittle flew from Burbank, Cal., to Newark, N. J., in 11 hours, 16 minutes, establishing new transcontinental record. He flew a Laird Super-Solution equipped with a Pratt and Whitney Wasp Jr. motor. (Sept. 4, 1931)

Flying a Granville Gee Bee Super-Sportster equipped with a Pratt and Whitney Wasp Jr. motor, Lowell R. Bayles won the Thompson Trophy Race at a speed of 236.239 m.p.h. at Cleveland, Ohio. (Sept. 7, 1931)

Don Moyle and Cecil A. Allen were forced down in Siberia on an attempted transpacific flight from Tokyo, Japan, to the United States. They flew an Emsco equipped with a Pratt and Whitney Wasp motor. (Sept. 8-9, 1931)

Lieut. J. N. Boothman won the Schneider Cup Race at 342.871 m.p.h. at Calshot, England, securing the Trophy permanently for England. He flew a Vickers Supermarine S6 B equipped with a Rolls-Royce XLR motor. (Sept. 13, 1931).

Willy Rody, Christian Johansen and Fernando Corsta Viega, flying from Juncal do Sol, Portugal, were forced down at sea off Newfoundland and remained afloat for a week before being rescued. They were flying a Junkers W-33 equipped with a Junkers L5 motor. (Sept. 13-14, 1931)

25 Years Ago

Sadi Lecointe won the aviation Grand Prix at Breavia, Italy, covering 186.41 miles in one hour, 13 min., 19 sec. (Sept. 5, 1921)

Martens in Germany made a new gliding record with motorless plane, remaining aloft 15 min., 40 sec. (Sept. 6, 1921).

Aeromarine Navy H.S.-2 returned to New York after 7,491 miles round trip flight to Chicago, via St. Lawrence and around the Great Lakes. D. G. Richardson piloted the ship. (Sept. 11, 1921)

British Secretary of State for Air, Capt. F. E. Guest, visited the United States. (Sept. 15, 1921).

Books

AIRPORT PLANNING. By Charles Froesch and Walther Prokosch. Illustrated. 250 pp. John Wiley & Sons, Inc. \$7.00.

This is an important contribution to the field of airports and airport planning by two able men within the air transport industry. Mr. Froesch is chief engineer of Eastern Air Lines and is already well known for previous writings. Mr. Prokosch is an architect in the engineering department of Eastern. It is well evident that much time and study went into the planning of the book and it is very well illustrated with both half-tones and drawings.

It is a book as much for city planners and city managers as it is for architects and airport engineers. It is far from being just a construction thesis, for the contents range from the airport and the community and a

study of present and future aircraft, to airport traffic control, special services, and studies of all types of airports and landing fields. There are, of course, chapters on lighting, hangars and airport building design.

In a preface the authors mention that they had compiled in 1943 a pamphlet in answer to questions raised by communities served by Eastern, as well as others contemplating airport projects. This book is an outgrowth of that pamphlet, for the need of more complete and detailed coverage soon became evident. For this reason the book is most timely for it is designed to answer the practical and everyday questions that are arising throughout the country with regard to airport planning.

It should find a ready and useful purpose. The authors are to be commended for filling an immediate need. Eddie V. Rickenbacker, president of Eastern Air Lines, has written a foreword.

AIRCRAFT DRAFTING. By Hyman H. Katz; The Macmillan Company, New York; 336 pp.; \$5.00.

The author, an experienced drafting instructor in universities and in such plants as Consolidated Vultee and Republic, has undertaken—quite satisfactorily—to produce a basic reference text for students and for draftsmen in other fields who want to learn about aviation. From his practical background in training large numbers of draftsmen for aircraft manufacturers, Mr. Katz has kept in mind the employer's point of view and has emphasized practical working knowledge.

Sufficiently recent to incorporate major wartime developments in large-scale drafting room practice, the book goes into considerable detail on such subjects as lofting, pictorial drawing and orthographic projection in addition to ordinary line drawing. Throughout, the text and numerous illustrations have been planned to give the student an understanding not only of his work as a draftsman but of his place in an engineering and production organization.

FIRST DENVER CONGRESS ON AIR AGE EDUCATION. Published for the University of Denver Press at the University of New Mexico Press, Albuquerque. 139 pp. Illustrated.

This is a compilation of discussions, papers delivered and resolutions adopted at the first Denver Congress on Air Age Education, held at Denver, July 23-28, 1945. Leading figures in the aviation industry and the educational world are represented. The compilation was compiled in order to reach those who were unable to attend, and to spur interest in a similar congress to be held in 1947.

THE MODEL AIRCRAFT HANDBOOK. By William Winter. Thomas Y. Crowell Co., New York. 345 pp. Illustrated. \$2.50.

Builders of model airplanes should welcome this revised work prepared by William Winter, who recently resigned as editor of *Air Trails Pictorial* and who is an expert model builder in his own right. The book not only contains types of model aircraft, their working plans and materials, but tells you the whys on every point. Plans and descriptions on 18 new models are included in the work, which also covers such subjects as miniature gas engines, indoor models, U-control and G-line flying, and radio control.

CAREERS IN AVIATION. By Samuel Burger. Published by Greenburg. 209 pp. \$2.75.

Written in a lively, interesting style, the author has given a new treatment to a subject about which several books have been recently published. Practically every branch in the field of aviation is discussed for its possibilities in offering employment to enthusiasts who seek a career in the aeronautical industry. A number of worthwhile tips are included in sections devoted to aviation engineering, a phase of the business that now offers unusual opportunity to beginners as well as seasoned personnel.

Letters

The No-Show Problem

To the Editor:

I was quite interested in your editorial on penalizing the no-shows in the July 15 issue of *AMERICAN AVIATION*. I don't make a habit of taking written issue with editorials but I so strongly believe you are wrong in this case that I have finally felt the urge to write.

I am firmly convinced that if the airlines will put their own traffic house in order that the now-show problem will be of such minor consequence that the paper work involved in the penalties will cost more than the revenue lost. The basic reason for the no-shows is that the airlines are incapable of handling the traffic at the present time, thus forcing the traveling public to protect their own schedules by holding reservations. To illustrate my point rather forcefully, I will give you an experience of my own. Before going any further, however, I want to say that I earn my living from the aviation industry and am, therefore, vitally concerned in the success of the transport industry. My remarks are therefore intended to be helpful rather than critical.

I had the occasion this spring to make a trip from Greentown, a midwestern city to Jamaica, B. W. I., with my wife and two boys. Because of the time involved, it was necessary that we travel by air. We had to make our reservations about two months in advance to be assured of space and it took better than a month to get confirmation. Our reservations left Greentown in the morning arriving in Miami that evening. We then had the requested one day layover in Miami to take care of the international red tape leaving for Jamaica the morning of the third-day.

The day of departure duly arrived and we showed up at the airport on schedule only to have a surprised airline A ticket agent ask us if we hadn't been notified that the flight was four hours late. Not having been so notified we had to waste four hours doing nothing. Incidentally, we had about $\frac{1}{2}$ -hour to make our connection with airline B at Redtown. When we arrived in Redtown our reservations no longer existed. That line B plane left with seven empty seats because of bad connections. We then spent 12 hours in the terminal waiting for cancellations. Have you ever tried to get four cancellations on one plane? We then had to split up, my wife and one boy taking two cancellations as far as Bluetown. The ticket agent informed her they would wire ahead to get cancellations for them when they arrived in Bluetown. On their arrival in Bluetown the agents had never heard of them; so the old routine was gone through. Did you ever try to sit or sleep on the chairs in the Bluetown terminal waiting for cancellations? Try it some time. Well to finish their trip they finally got to Miami about 18 hours later than scheduled.

Now we come back to the other boy and myself. We checked in at a hotel for the night and finally got reservations the next morning for Pinkville. Once again we were informed that they would wire ahead to get us cancellations. Once again they never heard of us when we arrived. The only possibility of a cancellation was on a flight that would get us in Miami too late for our PAA reservation. The attempts by the ticket office were so disgusting that I finally had to charter a plane to get us through in time. The final result was that the trip cost us almost \$200 more than originally expected. If it had not been for the one day layover in Miami, then PAA would have gone out with four no-shows.

Our return trip was equally as spectacular. Due to an accident my wife had in Jamaica it was necessary that we delay our return two days. I asked for the same reservations two days later. When I arrived at the airport and they showed me my schedule I



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458 South Spring Street, Los Angeles 13, California



nearly passed out. I could have made the trip by train quicker. I won't go into a detailed history of the return trip but one layover was for ten hours. Another layover was for 26 hours at a distance of one flight hour from home.

This long discourse gets me back to the main theme of my argument. Get the airlines to clean up their schedules and the no-show problem will disappear insofar as a major problem is concerned. People travel by air because they want to get to their destination quickly. The business man travels by air because the problems confronting him need immediate solution. In anticipation of these problems he gets a reservation and holds it until he is sure whether he needs it or not. The airlines must find the solution to the problem so that the individual can go to the ticket window, buy his ticket and board the plane immediately. It is foolish for the individual to have to consume more time making a reservation, buying a ticket, and wasting time at layovers, than it takes to actually make the air trip itself. In general, if it takes a person more time to do all these things, then it is quicker to travel by other means. One of the things the airlines must have forgotten is that air travel is the fastest means of transportation and all the rest of their traffic problems must be keyed to this speed. At present I have found it possible to get a train reservation quicker than I can get an airline reservation. This tends to make air travel appear to be a luxury rather than a necessity.

If the airlines can lick their traffic problems then the traveling public will not care to make long advance reservations. In the solution of any problem it is usually the least obvious answer that is the correct solution. To penalize no-shows is the most obvious answer and is therefore proof that it is not the correct solution to the problem. I realize it is not easy to lick, and I know many of the problems they are up against, but it can be done. The airlines are a public service institution and are paid to solve

these problems. Let us not therefore dump those problems on the public who are in general incapable of understanding them.

You said in your editorial that the airlines "have been kicked around long enough." Let us say instead that the public has been kicked around long enough.

I am still all for air travel regardless of how much the airlines, through mismanagement disillusioned my wife in that mode of transportation.

W.M. R. BLAKELY
Wichita, Kansas

and there are many, to key local positions.

TRUEMAN T. REMBUSCH
Secretary-Treasurer
Syndicate Theatres, Inc.
Franklin, Indiana

Editors Note: Airline names and cities deleted but author of letter supplied specific information.

Credit to ALPA

To the Editor:

In your August 15 editorial you give "full credit" to the manufacturers and the airline operators for the fact that the Constellation will fly again. Your statement does not do justice to the Air Line Pilots Association which in March, and again in April, advised the CAA of definite fire hazards in the Constellation.

Following the Reading accident in July which grounded the Constellation, the CAA included in the required modifications of the airplane the 16 recommendations of the ALPA relative to removing the fire hazard.

The ALPA is not merely an organization to protect the pilots, but among its many functions is included a responsibility of protecting the general public.

CAPT. R. A. STONE

United Air Lines

(Editor's Note: Thanks to Capt. Stone for calling attention to an oversight. ALPA's recommendations did play a big part in the CAA modification order—and credit is hereby given.)

Transair vs. Twair

To the Editor:

The Aug. 15 issue of AMERICAN AVIATION contains an item which apparently originated in the lair of the lawyers who represent TWA. The burden of their complaint seems to be that certain other air carriers have had the effrontery to choose names beginning with T which, they assert, causes no end of confusion in Kansas City.

This seems to us a bit far-fetched. If TWA is so easily confused, isn't it possible that it shows an organizational weakness of some sort? The legal eagles scream that TWA uses "TRANSAIR" as a cable address. Simple investigation shows that the TWA cable address is TWAIR. It is not surprising that the company should deny having registered such an address but if Mr. Frye thinks that he can give us TWAIR while he takes TRANSAIR he is crazy. We really couldn't use TWAIR. Could you?

We are also reported as having offered to give up the name TRANSAIR in exchange for two DC-3s. Since TWA has seen fit to make unkind remarks about us in the leading trade journal we have raised the price to two DC-4s.

We are not angry at TWAIR and we fail to see why it should be annoyed with us.

J. A. McVickar, Jr.,
General Traffic Mgr.,
Transair

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College; Business Sales and Management Experience; Accounting; Plans and Training Officer; Operations and Training Inspector in Army Air Corps, Air Transport Command.

Speak, read, write, translate fluently: English, Polish, German; fair Spanish; and some Czech, Russian, Slovenian. Age 40. Write Box 312, American Aviation, American Bldg., Washington 4, D. C.

Booklets

The chief of the Tariffs and Service division of the Civil Aeronautics Board, has issued revised pages to the Board's Mileage Book No. 1 (Revised) bearing correction numbers 1 to 174 inclusive, which include all changes and additions to and including June 1, 1946. The correction numbers shown on these pages should be checked against the correction numbers on page v of the book and inserted in place of the pages previously issued.

U. S. investigators who conducted an extensive survey of the Nazi aircraft industry, after V-E Day, have compiled 17 reports on German developments and processes in aircraft production, which have been made available for American industry. A complete list of the reports, their prices and the data they make available, may be obtained from the Office of Technical Services, Department of Commerce, Washington, D. C.

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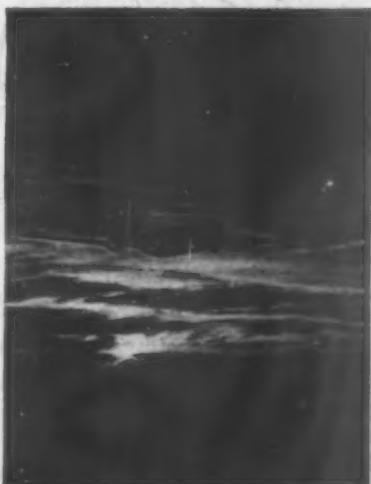
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HANGAR FLYING



THE WHALEBOAT

In Building 82 at Burbank, engineers have been fussing over a remarkable object that looks like a dural whaleboat on wheels. It's the *Constellation*'s new Speedpak and it's a lot more useful than a whaleboat, except maybe to whalers.

With the Speedpak, fast handling of air cargo is made possible for the first time.

This is the way it works: The Speedpak is loaded independently of the ship (which may be in service somewhere else at the time.) When the plane arrives, the Speedpak is attached to the bottom of the fuse-



lage. Off the *Constellation* flies with the Speedpak clinging to its belly, full of over four tons of additional cargo. At any stop the Speedpak can be lowered, loaded and lifted in a matter of minutes.

For all its 395 cubic-foot capacity, the Speedpak slows the plane down less than 10 mph, which is peanuts for the five-mile-a-minute *Constellation*.

The Speedpak is a new solution to the cargo problem. But new ideas are old stuff at Lockheed—ideas that make good hangar flying and better air transport.

L to L for L

© 1946, Lockheed Aircraft Corporation, Burbank, California

Background

(Significant Developments and Forecasts)

Douglas Drops DC-8: Douglas Aircraft Co. has decided for the present not to continue with development of the DC-8 transport version of its XB-42 "Mixmaster" bomber. A few days after the Mixmaster had set a record of five hours and 17 minutes flight time between Los Angeles and Washington last Dec. 10, it crashed on a routine flight near Bolling Field. This plane, with the propellers in the tail and the engines buried in the fuselage, gave promise of being one of the speediest transports of the transition period. At present Douglas also is not planning to proceed with the DC-7 passenger transport version of the C-74, of which 13 are being built for the Army.

AAF Research Cut: Pay raises for Government employees are going to cost the Army Air Forces a sizeable part of its planned research program. As explained by Gen. Carl Spaatz: Congress approved a 14% salary increase for the civilian employees, but neglected to appropriate any additional funds to make up the difference. Result is that AAF will have to reduce its civilian personnel from 163,000 to 131,000 by Dec. 31. Most of the blow will fall on the Development and Research program at Wright Field, including guided missile activities and other long range projects of paramount importance. Additional air bases will be closed, the Air Reserve and National Guard will be retarded, and the concept of 70 groups as recommended by General Hap Arnold will have to be revised. In addition there will be a heavy reduction in the number of air shows and demonstrations in which the AAF can participate.

Toward Low Freight Rates: With air freight taking hold more and more as an accepted method of distribution, release of data on the Boeing Stratofreighter, all-cargo version of the Stratocruiser, highlights a significant item not only to the aviation industry but to the distributive trades of the country as well. Boeing engineers figure the Stratofreighter will operate at the low direct cost of 3.9c per ton-mile. Best claim previously advanced for a big plane was 4.9c per ton-mile for the cargo version of the Douglas DC-4. These figures compare the lowest operating cost of a C-47 under the maximum of 26,900 pounds takeoff gross of 8.2c per ton-mile, and the generally accepted figure of 5.25c for the C-54. What such reductions in operating cost may bring in the way of new long haul air freight business is interesting speculation. The Stratofreighter, of course, has almost twice the cargo capacity of the DC-4 and will carry 41,000 pounds compared to 22,700.

Non-Scheduled Retrenchment: That some of the larger non-scheduled operators may be facing early retrenchment in order to show a profit after their first early boom is suggested by reorganization of operating personnel within Slick Airways. Slick, who reported to CAB a loss of \$123,463 on operations during April and May, has not replaced two high administrative officials who left the company, but is shifting other personnel and combining duties in the key jobs. Also Slick has de-activated its station at Amarillo, Tex., and is running its east-bound freight from the southwest through its Denver station.

Brief Airline Notes: Pacific Air Lines, a California intra-state operator, is capitalizing on the switchboard trouble the major airlines are having by emphasizing "30 second" reservations service in its advertising. . . . Frequent extra sections, especially over the weekends, testify to the effectiveness of the strategy; and reservations can be confined on the spot. . . . The Bank of America's office in Los Angeles is air freighting \$2 million worth of checks daily to the New York clearing house. . . . Now that all the major airlines will use Detroit's Willow Run airport, PCA's Airport Consultant Dudley Steele is pushing plans to make it one of the most modern air terminals in the country. . . . Included in development plans will be restaurants and bars overlooking the landing field, a garage where travelers may have their cars stored or serviced while away, a newsreel theater and a hotel.

and Trends

Based on the Fortnight's Top News

New Airports and Landing Fees: As part of its campaign against landing fees imposed on private pilots, the Aircraft Owners & Pilots Association has requested the Civil Aeronautics Administrator to withhold all public funds under the Federal airport bill to any city or other sponsor until a definite commitment has been obtained, assuring that no landing fees will be charged against personal aircraft. However, J. B. Hartranft, Jr., AOPA general manager, says that no response to the request has yet been received. CAA will not begin apportioning funds under the program until late this year or early next. It is considered doubtful that CAA has the authority to withhold funds on this basis, although it can withhold them from airports not meeting CAA specifications.

New Helicopter Experiment: The Post Office Department, which has been experimenting in the Los Angeles area with the carriage of mail by helicopter, may try a similar experiment in the Chicago area. PO wants more data on operation under different weather conditions. Navy may conduct the Chicago test—Los Angeles flights were run by the Army.

202 Deliveries: Glenn L. Martin Co. expects its 202 twin-engined transport to fly in September, with first commercial delivery being made to PCA next January. The 303 will fly in December, first one being delivered to United Air Lines in July, 1947.

Assistant Secretary of State for Air: Talk about an Assistant Secretary of State for Air has died down in recent weeks, but this does not mean that proponents have abandoned the fight. As a matter of fact, chances that someone will be appointed to the job are stronger than ever. One high official has agreed that an Assistant Secretary is needed, and if he follows through one will be appointed.

Cornell Experiments: Cornell Aeronautical Laboratory is now flight testing an experimental jet engine for the Aviation Gas Turbine Division of Westinghouse Electric Corp. A stripped-down B-17 is being used as the high altitude test ship. Recent studies and experiments on structural materials by Cornell has resulted in significant improvements in strengthening helicopter blades. High-strength fiberglass plus special resins in combination with low-density cores are being used.

Bell Deliveries: Bell Aircraft will make first deliveries on its Model 47 two-place helicopter next month. Backlog is 500 orders. Production on the five-place Model 42 probably will begin next spring.

Notes on Manufacturers: The fact that Douglas Aircraft Corp. is working on a supersonic plane under Navy contract has been disclosed by the National Advisory Committee for Aeronautics, but all details are still being withheld. . . . Higher prices may soon mean an easing of the aircraft fabric shortage which has been a serious problem for lightplane manufacturers. . . . OPA has authorized a general price increase on grey goods used in making the fabric and fabric manufacturers may now find it profitable to turn loose larger allocations. . . . An exceptionally attractive job on the interior of the Douglas DC-3 "executive transports" has been done by Douglas. Design consultant E. Gilbert Mason. . . . Desks, radio, clock, folding tables and other accoutrements of a "flying office," plus extra soundproofing which makes the cabin even quieter than that of airline models, are some of the features. . . . Douglas has sold nine of the "executives" and has about 20 other DC-3's from surplus for conversion as other orders are received. . . . Ryan Aeronautical Co. reveals that it has done much engineering and experimental work on rotors and other mechanisms of the helicopter in recent months, and announces it will actively continue its program of research and development—but does not reveal any actual manufacturing plans.

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Instrument Landing Delays Expensive

Stacked Airliners Lost 1721 Hours During First Half of 1946;
Estimates Place Cost At More Than \$99,000

By LEONARD EISERER

DEALS incurred by air carrier planes awaiting permission to land under instrument conditions cost domestic transport operators heavily in time and money during the first half of this year, according to a study of nationwide air traffic control data by AMERICAN AVIATION.

Official figures derived from Civil Aeronautics Administration sources reveal that air carrier planes in the six months ending last June lost a startling total of 1,721 flying hours and 41 minutes, stacked up awaiting the signal to come in and land. This time was computed from the moment the plane arrived at the spot where the instrument approach would normally begin, until permission was given for the approach to be initiated. Transports operated by non-scheduled carriers are included in the figures along with those of the regular airlines, since CAA traffic control records do not differentiate between the two types. However, traffic experts estimate that the scheduled operators may be presumed to account for at least 90% of the "Air Carrier" totals.

While the dollars lost are impossible to compute precisely because of the many intangibles involved, the current amount of such profitless flying stamps the stack-up method as a most uneconomic solution of traffic congestion for the airlines.

Estimating conservatively one of the more obvious financial factors, the 1,721 hours of delay time for the six months would represent an item of \$99,818, based only on the use of Douglas DC-3 planes with an average operating cost of \$58 per hour. The latter figure includes only crew pay, fuel cost, and depreciation of flying equipment. Extensive use of four-engine planes, of course, would boost this figure considerably higher.

In terms of mileage, the 1,721 hours would mean a minimum of 283,965 airline miles that could have been flown in pro-

fitable operation, using the 165 mph. average of 1945 for domestic airline operations which is appreciably lower than average expected for this year.

Just a few of the other elements to be considered in adjusting the gravity of the problem are the substantial indirect costs involved, diminished effective plane utilization for the airlines, and missed schedules and other inconveniences for the traveling public. Furthermore, with heavy seasonal traffic months ahead, the condition is likely to worsen before it can be improved with the working out of better and speedier approach methods.

The CAA d., summarized in the accompanying table, disclosed the not surprising fact that the airway traffic control area served by the New York center is the most congested in the country, as measured by total delay time involved in instrument approaches. During the 1946 first half, the New York area accounted for 371 or 21% of the 1,721 hours delay experienced by air carrier planes. The Washington area was responsible for 236 hours, Chicago for 216, Detroit for 168, and Los Angeles for 132. The delays in these five areas together represented 65% of the total for all of 25 control areas which blanket the country.

Monthly reports of instrument approach delays showed little seasonal consistency. May, with 471 hours delay for air carrier planes, was the worst month during the first half, followed by January with 340 hours, and March with 266. April had the fewest hours lost with 179.

While air carrier planes, which made 40,296 of the 50,593 instrument approaches during the period, experienced the greatest amount of delay, Army, Navy, and miscellaneous civil aircraft were stacked up for an aggregate of 696 hours. Of these groups, Army craft compiled the highest total with 406 hours.

INSTRUMENT APPROACH AND DELAY TIME SUMMARIES BY CAA AIRWAY TRAFFIC CONTROL CENTERS, JANUARY-JUNE, 1946

Instrument Approaches

Control Areas	Air Carrier	Other Civil	Army	Navy	Total	Air Carrier	Other Civil	Army	Navy	Total
Albuquerque	820	16	67	130	742	12:14	:00	3:50	2:38	20:48
Atlanta	2,056	104	270	23	2,460	49:48	4:47	21:08	1:41	77:24
Boston	1,221	85	277	15	1,598	19:18	2:48	10:41	1:48	43:32
Chicago	2,774	211	121	40	2,935	21:49	19:21	2:58	1:28	55:47
Cincinnati	2,004	89	139	48	2,276	24:25	2:25	1:29	1:24	48:42
Cleveland	989	90	32	9	1,120	27:30	7:31	1:27	1:26	30:58
Denver	953	20	156	0	1,139	16:12	1:38	4:24	1:00	24:54
Detroit	1,298	90	12	4	1,364	16:48	6:00	1:28	:02	178:48
Fort Worth	1,049	138	818	87	2,670	06:00	6:57	50:50	3:35	140:31
Great Falls	241	2	97	1	441	1:03	:00	1:19	:00	2:22
Jacksonville	766	63	195	66	1,088	39:48	6:00	10:39	2:53	68:18
Kansas City	2,882	113	237	50	3,232	13:32	2:00	6:57	1:33	66:06
Los Angeles	4,019	272	632	550	5,493	13:29	1:23	20:09	2:00	103:59
Memphis	1,578	37	433	24	2,071	36:20	1:18	35:51	1:33	71:48
Miami	185	27	86	20	258	13:18	4:48	8:17	2:41	57:03
Minneapolis	946	37	68	2	1,054	7:20	1:23	2:23	:00	21:19
New Orleans	294	15	120	17	329	4:28	:00	1:57	:16	6:46
New York	2,850	368	220	50	3,458	37:16	46:06	38:07	2:34	450:36
Oakland	2,120	83	325	439	2,525	29:07	1:38	18:46	12:48	54:19
Pittsburgh	2,460	99	38	14	2,611	6:08	1:29	1:00	1:18	68:18
St. Louis	1,192	84	76	20	1,372	43:19	4:09	8:03	1:47	83:18
Salt Lake City	780	18	69	2	866	14:12	:00	1:57	:00	24:18
San Antonio	1,644	211	828	77	2,757	16:30	7:40	32:13	2:18	89:38
Seattle	2,141	69	430	190	3,084	14:53	1:16	10:31	3:26	30:06
Washington	1,283	111	512	282	1,928	23:23	6:08	50:20	3:37	399:37
TOTALS	40,296	2,373	8,807	2,158	50,593	1,781:41	170:10	400:58	110:36	5,457:16

All First Class Mail Should Move By Air, C. R. Smith Declares

A strong plea for a national aviation policy and for the carriage of all first class mail by air without surcharge when the airplane offered faster service, was made by C. B. Smith, chairman of the board of American Airlines, before the World Congress for Air Age Education in New York Aug. 22.

"Air transportation is a vehicle of communication," he said. "So long as the printed or written word has influence in the world we should not be content with methods of communication less effective than others available to us. Why should a letter from the U. S. to India take six weeks in transit, when India can be reached by airplane in three days? Even before the war Great Britain authorized air transportation of all first class mails going to the Dominions, without surcharge. Within the U. S., is there reason why mails going to destinations beyond an overnight journey by train should not go by air?"

Mr. Smith said the Civil Aeronautics Act requires that there shall be "reasonable competition" in air transportation, but he asked when is that desirable level reached. "The history of transportation indicates that too much competition may be as dangerous to the national health as too little. We shall not want to encourage wasteful competition."

Turning to national policy, he said that airports and others all have stakes in manufacturers of airplanes, builders of national air policies. He said all of the problems and questions should be woven into a fabric of national policy and that such a policy should be accomplished now.

Navy Lockheed Constitution Groomed for Flight Tests

Commercial Possibilities Studied By Civil Agencies

By GERARD B. DOBBEN

LOCKHEED Aircraft Corporation's latest contribution to the air transport field—the giant, 92 ton, 180 passenger Constitution—is scheduled to make its first test flight late in September or early in October.

One of two aircraft built for the Navy, the Constitution was rolled into public view at the Lockheed Air Terminal in Burbank Aug. 21 after more than three years of official secrecy. The plane was turned over to the test department Aug. 30 and after four weeks of taxi tests, the ship is scheduled to be flown, not later than Oct. 5, possibly earlier.

The new craft, largest ever built for the Navy and 22,000 pounds heavier than the Army's C-74, largest land-based transport now flying, incorporates the most modern innovations in aerodynamics. Airline industry leaders believe that the performance characteristics of the Constitution will go a long way to settle the question as to what the ultimate size of aircraft shall be for long range international operations. The plane was built primarily to meet the Navy's need for a large, land-based transport with high speed and extreme range to carry personnel and priority cargo across continents and oceans with the greatest economy in time and money.

A general description of the Constitution includes the following information: four Pratt and Whitney Wasp Major engines capable of a combined output of 12,000 hp; wing span 189 feet, overall length 156 feet; cargo and passenger carrying capacity, 35 tons; two decks, connected by spiral stairways, upper deck seating 92 passengers, lower 76; cargo space runs from 2,000 cubic feet with 168 passengers to 7,405 cubic feet when entire lower deck is used for cargo; range between 6,000 and 7,000 miles; speed approximately 300 miles per hour; gasoline carrying capacity, 9,000 gallons; useful load 69,000 pounds; cabin pressurized throughout to maintain 10,000 feet pressure altitude at 25,000 feet; lands over 50-foot obstacle on 2,300 feet of runway; take-off at sea level in calm air after run of 2,350 feet at maximum gross weight; hydraulic booster control system similar to that on the Constellation; Lockheed-Fowler flaps, wing design insures minimum stalling speed of 80 miles per hour; advance flying aids, including Loran; landing gear consists of four wheels

on each of main gears, double nose gear which can be steered by pilot; hoists with 10,000 pound lifting capacity; cargo doors 106 by 74 inches, capable of handling any cargo that can be shipped in a railroad box car, including jeeps.

The plane will carry a pilot, co-pilot, radio operator, navigator and two flight engineers. One of the advanced characteristics include wing design which will permit the introduction of gas turbine power for still greater speed and efficiency. Vice Admiral Arthur W. Radford, Deputy Chief of Naval Operations for Air, stated the Navy was now studying installation of gas turbine engines. When these engines are available and can be installed, useful load of 69,000 pounds may be doubled and speed increased to around 400 miles per hour, Radford said.

Although the Constitution was designed and built as a military craft in compliance with the Navy's need for a high speed, long range transport, its commercial possibilities were followed closely throughout. For this reason, construction of the XR-60—the Navy's designation for the Constitution—witnessed the unusual practice of the Civil Aeronautics Administration approving structural design of a purely military aircraft and working in close cooperation with the Navy throughout the manufacturing process. In addition, Pan American Airways played the role of consultant in airline features of the plane's design.

The simplicity of the big plane's construction is one of its outstanding features. It has only 30,000 parts with 98,000 usages. The Constellation, on the other hand, has 42,000 parts.

The two planes cost the government approximately \$27,000,000, with the actual cost of the aircraft set around \$17,000,000 and the balance of \$10,000,000 charged to tooling and engineering costs. Had the war lasted, the Navy contemplated purchasing 50 at a cost of approximately \$2,225,000 each. The Navy has no immediate plans for ordering more of them, it was stated.

The second ship is due to come off the line shortly. After a year of tests, the Navy probably will turn them over to the Naval Air Transport Service for use in the Pacific theater of operations.

Although company officials refuse to discuss the subject, it is understood Lockheed now is negotiating a contract for a model of the Constitution to be powered with gas turbine engines. Lockheed does not now have any contracts to build the plane for commercial airlines.

Aviation Calendar

Aug. 30-Sept. 7—International Air Show, de Havilland Airport, Toronto, auspices National Aeronautical Association of Canada, 409 Confederation Life Bldg., Toronto.

Aug. 30-Sept. 2—National Air Races, Cleveland, O.

Sept. 4—Aircraft Manufacturers Council, AIA, West Coast Meeting, Los Angeles.

Sept. 10-13—Federation Aeronautique Internationale General Conference, London.

Sept. 17—IATA Western Traffic Conference, Rio de Janeiro.

Sept. 19-20—National Association of State Aviation Officials, 18th Annual Meeting, Butte, Mont.

Sept. 22-24—Annual Western Conference, Reno, Nev. (Weldon Vance, chairman).

Sept. 22-24—Organizational meeting of Flying Farmers of Washington, Idaho and Oregon, Spokane, Wash.

Sept. 24-Oct. 24—Foreign Transportation Institute, sponsored by American University, Washington, D. C.

Oct. 1—PICAQ Middle East Regional Air Navigation Meeting, Cairo, Egypt.

Oct. 1-5—SAE National Aeronautics (Fall) Meeting and Aircraft Engineering Display, Biltmore Hotel, Los Angeles.

Oct. 4-5—New York State Aviation Council annual meeting, Buffalo.

Oct. 12-13—Open House and free public air show, University of Southern California (College of Aeronautics), Hancock Field, Santa Maria, Calif.

Oct. 14-17—National Aviation Clinic, Oklahoma City.

Oct. 16-17—SAE National Transportation & Maintenance Meeting, Hotel Knickerbocker, Chicago.

Oct. 18-20—Second Annual Electronics Trade Show, Los Angeles.

Oct. 19-21—Third Annual "Avia," Las Vegas, Nevada, auspices Junior Chamber of Commerce.

Oct. 24—IAS National Air Transport meeting, Statler Hotel, Washington.

Oct. 24-26—Second annual Arizona Aviation Conference, Phoenix, auspices Chamber of Commerce.

Oct. 27-Nov. 2—National Air Mail Week.

Oct. 29—Annual meeting International Air Transport Association, Cairo.

Oct. 29—PICAQ Meteorological Division meetings resume, Montreal.

Oct. 30—PICAQ Special Radio Technical Division convenes, Montreal.

Nov. 7-8—SAE National Fuel & Lubricants meeting, Mayo Hotel, Tulsa, Oklahoma.

Nov. 15-24—National Aircraft Show, sponsored by Aircraft Industries Association, Cleveland.

Nov. 19—PICAQ Communications Division resumes, Montreal.

Dec. 2-4—SAE National Air Transport Engineering Meeting, Edgewater Beach Hotel, Chicago.

Dec. 12-15—Second annual International Aviation Celebration, El Paso, Texas, auspices Chamber of Commerce.

Dec. 17—Tenth Wright Brothers Lecture, New York, auspices IAS.

Jan. 10-11, 1947—15th Annual Air Maneuvers, Miami.

Jan. 11-16, 1947—Aviation of Tomorrow Exhibit, Miami.

Jan. 28-30, 1947—Fifteenth annual meeting, IAS, New York.

April, 1947—National Aircraft Show, Los Angeles.



Navy's Biggest Here is the Lockheed Constitution, the largest airplane ever built for the Navy. Powered by four Pratt & Whitney Wasp Major engines of 3000 h.p. each, the 92-ton transport can carry 180 passengers at 300 m.p.h., with a range of 5000 miles. Wingspan is 189 ft., overall length, 156 ft. The top of the fin is 50 ft. above the ground.

Air Officials Confer With Foreign Nations On Bilateral Pacts

There was evidence during the past two weeks that the United States is making a determined effort to sign the right kind of bilateral civil aviation agreements with important nations still unsigned, and that the job has been made more difficult by a reappearance of the restrictive theories which were thought to have been discarded since the U. S.-British conference in Bermuda early this year.

The Brazilian situation was thought important enough for Civil Aeronautics Board Chairman James M. Landis to make a trip to Rio de Janeiro to talk with government officials about a bilateral agreement. Landis was still in Brazil as this issue went to press. Gen. George Brownell, New York attorney, who during the war was attached to the office of Assistant Secretary of War for Air Robert Lovett, was to leave on a similar mission to India, with the rank of minister.

And on Aug. 19 CAB Vice Chairman Oswald Ryan, who had headed the U. S. delegation to the unsuccessful air talks with Mexico in July, called upon the British to reaffirm their adherence to the "policy of freedom" agreed upon at Bermuda. This was the first public statement asking reaffirmation by the British, but it has been reported that other requests have been made and that U. S. officials may go to London to talk with the British.

Neither Landis nor Brownell will actually negotiate civil air agreements, but they will attempt to iron out some of the differences of opinion that now exist between the countries involved. Informed sources indicate that in both Brazil and India the U. S. has come up against the theory of divided frequencies and traffic, limitations on the Fifth Freedom, etc. Brazil wants several entries into the U. S.—New York, Miami, Washington, Chicago and New Orleans—and has not yet seen its way clear to grant all routes re-

Space Available Fares

The possibility that space available tickets will be sold by American Airlines by next summer, at perhaps half the regular fare, was held out by C. R. Smith, chairman of the board of American Airlines, in a panel discussion at the World Congress on Air Age Education, International House, New York, on Aug. 22. Admitting that the plan faced difficulties in being worked out, Smith said school teachers and students would be among those taking advantage of the lower fares but without any guarantee of space until plane time. Presumably the space available tickets would be sold on trans-Atlantic services also. Vernon Crudge, of BOAC, has advocated such a plan for international routes.

quested by the U. S. It is intimated that this may affect some U. S. routes granted in the recent Latin American case. India, leaning toward a quota system, does not want U. S. lines carrying traffic between India and Ceylon and India and Burma.

Ryan, in a speech before the School of Advanced International Studies at Peterboro, N. H., asserted that "the policy which seeks to restrict international air transportation by imposing arbitrary limitations upon the schedules to be operated and the seating capacity to be provided is by no means dead." Since the Bermuda conference, where "hamstringing restrictions" was removed, the British have made agreements with France and Argentina which depart from the Bermuda principles, Ryan said.

"There is reason to believe that the agreements which the British have made with Argentina and France do not indicate conclusively British abandonment of the principles which the Bermuda agreement established for the guidance of international aviation; nevertheless, the

future of international air policy would be greatly clarified if the British government were to reaffirm its adherence to the policy of freedom which was set forth in the Bermuda document and which paved the way for what many of us believe will mean an era of world trade and travel in the air beyond anything that has been dreamed in the past," he said.

Connies To Be Back On Lines By Sept. 20

Most of the Lockheed Constellation aircraft grounded by the Civil Aeronautics Administration July 11 following the crash of a TWA-owned Constellation at Reading, Pa. are expected to be back in service by Sept. 20. Pan American Airways was the first air carrier to return a Constellation to service.

Pan American was ahead of most of the other carriers because it was making the required CAA modifications on the present carburetor type engines now installed in the Constellations. TWA and American Overseas were installing fuel injection systems. Foreign airlines, such as British Overseas Airways and KLM, Royal Dutch Airlines, expected to receive their modified ships about the same time that Pan American was to receive its fleet. Work on Pan American, KLM, BOAC ships was being done at the Lockheed plant, Burbank, Calif. while modification of the TWA and American Overseas planes was being done in company shops.

Planes with both types of engine installations had already completed the tests required by CAA before issuance of new airworthiness certificates.

Traffic Up Sharply

Domestic airline traffic in the first six months of 1946 was substantially ahead of the same 1945 period, and the indications are that the year 1946 will see the airlines carry the 11,000,000 passengers predicted in AMERICAN AVIATION, July 15.

Although complete statistics on the first six months' operations have not yet been filed with the Civil Aeronautics Board (Eastern Air Lines' June report was still to be received as this issue went to press) it seemed certain that the airlines carried at least 5,200,000 passengers in the first half. This is an increase of 87.5% over the same period last year. Revenue passenger-miles should be over 2,600,000,000, up 72% over last year, while available seat-miles of about 3,100,000,000 or better will put the industry 80% ahead of 1945's first half. Revenue plane-miles will exceed 147,300,000, up 52%.

In May, for the first time in history, the airlines carried over 1,000,000 passengers in one month, the total being 1,014,522.

Other estimates for the first six months include 18,000,000 mail ton-miles, 9,500,000 express ton-miles and 4,000,000 freight ton-miles.

A complete tabulation of the first six months' totals will be carried by AMERICAN AVIATION as soon as final figures are available.



5c Air Mail Becomes Law—President Harry S. Truman is shown as he signed H. R. 5540, the bill reducing air mail postage from 8c to 5c an ounce, into law (Public Law 730). Signing took place at the White House Aug. 14. Seated with the President is Postmaster General Robert E. Hannegan. Standing, left to right, are Rep. George D. O'Brien (D., Mich.), chairman of the House Post Office and Post Roads Committee; John J. Hart, superintendent of postal service for United Air Lines; Sen. Dennis Chavez (D., N.M.), chairman of the Senate Post Office and Post Roads Committee; Sen. Carl Hayden (D., Ariz.), member of the committee; Rep. Charles E. McKenzie (D., La.), author of the bill; Rep. John C. Butler (R., N. Y.); Frank Dolany, Post Office Dept. solicitor; Clarence E. Fleming, vice president of TWA; Emery Johnson, executive secretary, air cargo division, Air Traffic Conference, Air Transport Association, and Charles M. Knoble, PCA's mail and express traffic manager.

National Airlines Grew From Humble Beginning in 1934

Organizer of Line Got Start In Aviation As Distributor

By WAYNE W. PARRISH

If G. T. Baker has any regrets (which he hasn't) about being in the airline business for 12 years, he could blame it all on a rainy Sunday afternoon in Chicago and a copy of Yachting Magazine. He liked boats and having nothing else to do that day, was thumbing through the pages of boat ads when he came across an ad by Detroit Aircraft Corp. advertising some Eastman flying boats.

In his late twenties then, Baker was doing pretty well in the finance business. But he had a yen to own an airplane and he saw no better way of buying an airplane at wholesale price than to secure a distributorship. He was already in the sales finance business, and going into the airplane business wasn't far out of line. He wrote to Detroit Aircraft Corp. and received an acceptance of his offer to become a distributor.

This was in the late roaring 1920s. Baker acquired other planes and opened up a downtown salesroom, one of the first in the country for personal planes. He did pretty well. He let out his own planes on charter and got quite enthused about the aviation business. But being a business man, he found soon enough that the charter business in those days wasn't very profitable.

In 1933 came the air mail cancellations and Baker read with consuming interest that bids were being asked on an entire new slate of routes. He decided to take a whirl. He entered three bids, but was low on only one route and that was the smallest of them all—142 miles between St. Petersburg and Daytona Beach, Florida.

Getting the contract (he had bid 17¢ a mile) wasn't a mere formality in those days. Low bidders had to prove that their planes could meet the speed requirements and all Baker had was a couple of Ryans. He was able to prove that the Ryan which he wanted to put into service first had a speed of 112 miles an hour, just 2 miles an hour over the requirements. Harilee Branch, who has been a CAB member since 1938, was then in charge of air mail for the Post Office Department which had complete control over the airlines in those days. Branch accepted the figures and drew up the contract and signed it. Baker, at the age of 32, had his route.

On September 4, 1934, George Theodore Baker arrived at St. Petersburg from Chicago in his Ryan to start service. There was no civic delegation and no band to greet him. The good citizens of St. Pete were suspicious and skeptical of a Chicagoan coming to Florida to start an air mail service with a couple of small planes. There were whispers about his lack of credit, but from the first day Ted Baker has never asked for one cent of credit in St. Pete and it wasn't long until the citizenry accepted him and his airline.

The official opening date for National was October 15, 1935, but to Ted Baker the Sept. 4 date is more important his-

torically. He thought he would spend a few weeks getting the line started and then return to Chicago, coming back occasionally to see how things were going. But he never returned to Chicago.

It wasn't easy operating that small airline with a modest air mail pay, especially when Ted Baker wanted to own and operate his own business instead of floating stock issues. Credit wasn't always easy to get and the competition from some sources was pretty terrific. Baker built National the hard way and it is unlikely that there ever will be again in this country a similar aviation story of struggles and advancement. After what he went through, Baker can't be criticized for choosing his friends, for speaking his opinions, and for making his own decisions. He has earned the right.

National's expansion began in a small way within a year after the contract for mail was awarded. The line was extended to Jacksonville, passengers were carried, and then the route between New Orleans and Jacksonville was secured. The story of the change from small to larger and still larger airplanes is a rather familiar one. Perhaps a better criterion is the progress from an initial five employees (of which Baker was one) to 2,000 today. Baker used to do a lot of the flying and he's still a top-notch instrument pilot today. He used to be the cook and bottle washer, as did all executives in the early days. Today he sits at the head of a big and growing organization.

Few industries have leaped upwards with such rapidity as the airlines. In 12 years the jump from single-engined Ryan mail planes to the 58-passenger Douglas DC-6 transports which National has on order, is a terrific transition. And the original 142-mile mail run has grown into a system of 3971 route miles covering 24 stops now with 4 more certificated stops to be served shortly. It is even international with its Havana run which starts in September.

Today National has 12 Lockheed Lodestars (14 passengers each), five brand new DC-4s and one more DC-4 on the way for October delivery. For 1947 delivery are six Douglas DC-6s. Baker wants to replace the Lodestars but hasn't decided on the equipment, but he is leaning at the moment toward the new Boeing 417 feeder transport. The Martin 202 and the Convair 240 don't quite meet National's particular requirements for local services. The DC-6 model is identical with United's 58 seats with a lounge for

Too Big

Ted Baker, National Airlines' president, who started his airline 12 years ago with 12 employees, is often bewildered by his line's expansion. The other day he stopped in his Miami traffic office to cash a check, was promptly told it was against policy to cash checks. "But I'm an employee of National," he protested. "Sorry, we can't even cash employee's checks," he was told. So Baker had to go to the Columbus Hotel to get his check cashed. "Life is getting too complicated," Baker says.

six passengers in the tail. National's DC-4s have 44 seats and were the result of company policy to provide room and comfort rather than use high-density seating.

National is getting 11 hours utilization per day out of Lodestars and 11.57 hours per day out of the DC-4s. Load factors have remained surprisingly high despite the expected summer drop-off. There are many 100% load factors on various parts of the system.

Since the DC-4s were put on the New York-Miami and Miami-New Orleans runs, the revenue passenger figures have soared. In June the total revenue passenger miles was 17,154,224—5,000,000 more than in May. This is a phenomenal jump upwards. Next winter's business will be capacity.

The adjustment from a small regional carrier to a trunk system tapping the nation's largest city has its headaches, but Baker seems to have weathered the transition in amazingly good form. No longer can he run the whole show as he used to do. Today he's surrounded by a group of capable executives. Baker says he would have a lot more fun just operating a Miami-Key West shuttle, but no one takes him seriously when he says this. It is perhaps significant, however, that in becoming big-time as a carrier, National hasn't forsaken the small stops on its routes. It is doing a fine job on the long hauls, but it is doing an equally good job serving the small stops and Baker and his colleagues have some pretty hot ideas about giving the small places even more service when equipment is available.

One of the best National routes has been in operation but a short time and is paying off handsomely. This is the Miami-New Orleans run across the Gulf. The Havana run is scheduled to start modestly with a Lodestar in September, but later on it should be highly productive during the tourist season.

Second in command in National is George E. Gardner, whose long record in the airline and aviation business has given him an A-1 reputation as an op-



Gardner

Dobbs

Crane

Foreman

Morris

erating man. Gardner was with Northwest Airlines until last year and contributed greatly to the air route pioneering for ATC to Alaska. Florida is his favorite spot, however, and the National post was tailor-made for him. He has added stature to National.

On the traffic side is Herbert C. Dobbs, who has taken over the job from Harry S. Parker Jr., who has retired from the company. Parker was one of the earliest officers, and his father was one of Baker's trusted friends who helped him out of more than one tough financial spot in the lean days. Baker didn't forget the Parker aid and has repaid handsomely. The younger Parker benefited substantially too. Herb Dobbs is a legendary character in Miami, for he was with Pan American Airways for 17 years—having joined PAA when the company had but two small airplanes. A colorful pioneer of air transportation, Dobbs knows traffic and will be a great help on the Havana route.

Handling maintenance and engineering is quiet, capable J. D. Crane, known throughout the industry. Right now Crane is doing plenty of sweating getting ready for the DC-6 and he's still wrestling with DC-4 maintenance. The Lodestars are being maintained at Jacksonville, and he has two old timers helping him out—Charlie Banks and Hank Eads.

As special assistant to handle public relations, state and municipal relations, new route development and many other special assignments, is John L. Morris, who was manager of the Miami Chamber of Commerce for six years before the war. When Morris got out of the service late last year, Baker nabbed him and it was a happy choice. Morris is also visiting the stations to talk to employees and discuss company policies.

One of Baker's early aides, Robert P. Foreman, is secretary and executive assistant, and the treasurer is J. C. Brawner. One of the more recent executives is Miss Helen Bowen, a strikingly beautiful and popular girl who is superintendent of passenger service, the first woman to hold such a position with an airline. Thoroughly businesslike, Miss Bowen's handiwork can be seen in the generally high standard of service.

Except for Ted Baker himself, the oldest employee in point of service is D. H. Amos, manager of the personnel department, who joined National when it had two mail planes and operated out of St. Petersburg.

Among others who have been with National since the earlier days are E. J. Kershaw, operations manager; Joe Bailey, chief pilot; Capt. Clyde Andrews, Capt. Bob Peck, Capt. Charles Ruby, R. A. Raus, mechanic; Capt. Hershel Clark, and Charlie Banks, supt. of maintenance. In traffic two old-timers are Don Stremmel, now doing special traffic instruction work at the main office, and Charles F. Sharp, southern regional traffic manager.

National's expansion isn't over by any means. It expects to have a payroll of 4,000 people sometime next year when the DC-6s are delivered and it has applied for quite a few more routes. Baker would like to extend to the west coast. But with a \$216,350 net profit after taxes for the fiscal year ended June 30, National's rise and its expansion adjustment and development have been one of the success stories of aviation if not another route mile were added to the present system. It's a going concern.

National's 'Milk Run' Provides Service To Small Communities; Load Factors Are High

By W. W. P.

I have often been accused of being of unsound mind because (among other reasons too numerous to list here) I happen to like the airline milk runs. Without attempting to dispute the truth of the above general thesis, I continue to maintain that the way to see how an airline operates and the way to gauge an airline's usefulness to the territory it serves, is to fly the milk runs.

It's like a doctor taking the pulse of a patient. And the only way you can take the pulse of an airline is to stay away from the super-deluxe non-stop specials and hop on the grasshoppers.

I've just had a pretty complete grasshopper tour of National Airlines, with some of the super deluxe stuff thrown in for good measure.

It isn't easy to take the milk run trips if you let company officials know what you're up to. You have to do a lot of arguing to get your way. When I told Ronnie Gall, National's publicity director, that I intended to fly Flight 3 from New York to Jacksonville, and Flight 5 from Jax to Miami, requiring all day and half a night for a trip that takes only six hours by DC-4. I got the usual argument. Tom Prevost, National's assistant v.p. in New York, and Park Wright III, National's traffic man who established quite a B-17 record in the war and who wound up as a P.O.W. in Germany, both thought I was nuts. They wanted to show me National's fine Buccaneer DC-4 service. Against all the warnings, I bought my ticket for Flight 3.

And it was plenty worth while.

Flight 3 is a Lockheed Lodestar (14 passengers) out of LaGuardia and it takes the better part of a day to get to Jacksonville. But you see lots of water and lots of country. Tom Doherty, who was subbing that day for Neal Moseley as station manager at LaGuardia, gave me a good send-off and the Lodestar high-tailed to Philadelphia. From Philly to Charleston was new airline territory for me, and for that matter it's new territory for the east coast because this route was opened only last year.

Flight 3, I discovered, is somewhat legendary on National. If the weather is good, the flight is direct south from Philly and across Chesapeake Bay to Norfolk, and it has a fair chance of getting to Jax on time. If the weather is bad, it has to follow the airways via

Washington which requires a lot of additional flying time. This trip the weather was okey.

Capt. Jack Guthrie, who proved to be an amiable host as well as a good pilot, has been with National about three years. He is aiming for the DC-4 trips. First officer was Bob Lowery, recently of the U. S. Navy. Stewardess (and a very good one) was Maxine Sholar and I swear that her accent became more southern with each stop. I could be wrong, but I don't think so. She was New Yorkish up north and as southern as Brunswick, Georgia, when we passed over that point.

All the way down the coast were excellent military-built airports. They are top class for airline operations. But the ground facilities are temporary and makeshift. At Norfolk, station manager Jack Mathews took me through the hot wooden army barracks which house National's staff of 36. PCA also is housed in an army barracks. A new passenger terminal is being planned and in the meantime the airline folks are camping out. National has three New York-Norfolk shuttle trips, in addition to several through flights, and business is good. Rarely an empty seat.

An hour south of Norfolk is New Bern, N. C., a small but picturesque town that has been pretty well isolated from main transport services. It is producing a few passengers on and off each day on the single daily flight and the town likes its new spot on the airline map. Fred Turner is National's station manager and his office is a temporary army building that is almost open to the four winds. As in other places, the ground facilities contrast sharply with the superior airports with their ample runways.

About a half hour farther south is Wilmington, N. C., a seaport of fair consequence and with a temporary wooden passenger terminal a little more spacious than some of the others. There is even a small soft drink counter there. Jim Holomon is station manager and has been drumming up a few passengers each day for the single flight. Wilmington has had service only a few months but it should be a good traffic point in the future.

Next came Charleston, which is today one of the best-served cities on the east coast with National, Eastern and Delta providing a large number of schedules. Walt Miller, who has been with National about five and a half years, opened up the station for National just a few months ago. He knows the airline business well,

National's Growth

The following figures show the growth of National Airlines during the past 10 years (figures are for fiscal ending June 30):

	Revenue Miles Flown	Revenue Passenger Miles	Passenger Load Factor	Mail Ton-Miles	Express Ton-Miles
1945	7,136,722	106,760,367	55.46%	652,764	171,100
1946	12,642,528	217,576,848	64.20%	1,029,200	246,420
1947	2,361,247	30,606,066	56.77%	226,700	69,724
1948	1,514,918	18,119,615	53.06%	188,935	37,881
1949	1,519,993	11,209,034	55.78%	64,702	16,700
1950	3,242,200	7,000,222	54.00%	41,912	8,329
1951	835,200	3,488,316	42.57%	25,837	5,662
1952	672,130	1,340,050	35.74%	14,700	3,578
1953	381,882	983,688	22.56%	9,843	878
1954	180,601	284,472	24.49%	4,949	728
1955	180,578	246,798	16.43%	4,233	612



First Nose Hangar—First of two nose hangar units built by National Airlines at Miami as part of a \$1,000,000 maintenance base and system headquarters building program is shown in this photo. Building and canopy provide 40-foot coverage of a DC-4.

in addition to being personable and helpful.

Less than an hour farther south is Savannah, which is back on the airline map again with the Army relinquishing control of the airport. The municipal terminal was built for two airlines, and Eastern and Delta got in first. National's quarters aren't too hot but plans are underway for a new structure. Aggressive and alert King Taylor, recently out of the service, is the station manager. Taylor was in priorities and traffic with A.T.C. and started with National in 1941.

Jacksonville is a junction point for National, and Jim Fox, the station manager with a three-year record with National, has his headaches trying to fix up the damage when connecting flights are late. Jax is the focal point on the system with flights north, south, southwest and west, and there are 30 people at work in the National staff at Jax trying to keep things moving. From my observations there on several occasions, National handles its flights in good shape and it has adequate counter space to do the job.

Sand Dune Route

National used to be known as the "sand dune" route, but a flight on Trip 3 doesn't bear this out. There's more water than I realized, and endless miles of swamps and waste land. But commercially it's a good route—it taps the big Navy bases and it taps a group of important ports. National, in fact, probably serves more Navy bases and more seaports than any other airline although I'd have to check on this to be sure of the statement.

My plans for continuing to Miami on Flight 5 via Orlando, St. Petersburg, Sarasota and Fort Meyers, were blasted when Flight 5 arrived late from the north and went to the hangar for a mechanical. It wasn't due out until 11 p.m., so I and several other Miami passengers were put aboard a delayed Eastern flight which high-tailed straight down the line. Anyway, from 9 in the morning until midnight was long enough to get to Miami.

Another very interesting and scenic National service is the 54-minute flight from Miami to Key West. I went down with John Morris, assistant to the president, and spent an interesting day wandering about Key West while Morris tended to company business. Thanks to R. S. Lewis, the station manager, who was born in Key West, I did my sightseeing in a car. It was fearfully hot and the sights aren't too numerous, but Lewis knows the town and the area very well. National has three round-trips a day, hopes to make Key West a stop between Tampa and Havana, and keeps the planes tapped. Only other transport is a bus which requires four hot hours for the trip with a saving of only \$2.00 in fare.

The stewardess on the return flight, whose name I neglected to get, was excellent.

Next part of the National tour was a DC-4 Buccaneer from Miami to Tampa and across the Gulf to New Orleans. Here is a swell service. It's four hours and ten minutes by air from Miami to New Orleans and two nights and a day by train! Few places in the country offer such contrast. Consequently National runs full planes most of the time even though the service is only a few months old. Those 44-seat DC-4s make for comfort and the evening dinner served on board is excellent. Capt. Bill Barron was skipper of my trip but I neglected to get the other names and I should have, because the two petite stewardesses were among the best I've seen anywhere. Blame my lapse on reporting to the fact that a fellow passenger was blonde and attractive Arvela Creson, secretary to G. T. Baker, National's president, who was on her way home in Missouri for a vacation.

It's quite a sight to swing in off the Gulf and see New Orleans at night. And it's even a more pleasant sight to get off the plane and see the big hangar which has been turned into a passenger terminal. A terminal with space! It's been done up brown by Doug Langstaff and you can take my word for it that New Orleans' terminal is second to none in the United States in point of utility. Temporary—but adequate. Langstaff didn't sit around and cry about lack of material. He didn't alibi. He didn't evade the issues. He just went ahead and got a terminal that's a sight to behold on a busy evening. National, Eastern, Pan American, Delta, Chicago & Southern, Mid-Continent and Waterman all have good counter space. And there are seats to sit in. And a modest but quite adequate coffee shop.

Capt. Van Pelt, who was second pilot on a B-17 and bailed out over Berlin when his plane was shot up badly, and who was beaten by civilians when he reached ground and was P.O.W. for 11 months, is district traffic manager at New Orleans. I owe him thanks for a fine evening. Edward Plaege, station manager who was off duty when I was at the airport, was a B-17 gunner and also a P.O.W. In the downtown ticket office is Forrest J. Campbell, city traffic manager, whom I met some years ago at Shreveport, La. National is doing big business to Miami and Jacksonville, and has been competing successfully for New York business via Jax.

Capt. J. J. O'Leary of the equally-famous St. Charles Hotel (a Dinkler Hotel), was in his usual good form. He's a friend of all in aviation. I landed in a luxurious 3-room air-conditioned suite.

Flight 12 from New Orleans to Jax is another milk run in a Lodestar. National is giving some of the stops a lot of ser-

vice and is just about to go into several other towns along the route. At Mobile I missed seeing Gordon Kyser, the station manager; it was Saturday. But at Pensacola I saw his brother, Roy Kyser, who just got out of the merchant marine recently and returned to National. Also at Mobile was the irrepressible Don Stremmel (Flannelmouth Don in Zack Mosley's "Smilin' Jack") who is in National's headquarters at Miami but who was in Mobile to announce an air race the next day.

Tallahassee, capital of Florida, is a good traffic point and getting 5 flights a day each way on National and a lot of flights from Eastern north and south. Willard Bish is station manager and keeps plenty busy. This city has had poor rail service and is generating an unusual amount of air traffic. It's a good example of what happens when air service is provided—it's patronized.

On the trans-Gulf trip was Capt. Ed Horton and First Officer Morris, and Stewardess Jean Cooper. Any of you stewardesses who think you have tough jobs ought to get on Flight 22. Not only is it up and down a lot, but it is usually bumpy in hot weather. Miss Cooper did admirably.

Everyone Doing Job

An hour's flight from Tallahassee to Jax to connect with a super deluxe Buccaneer non-stop in 4 hours and 10 minutes to Newark. What a change the DC-4s make in saving time on long hops. The meal was one of the best I've ever had on an airline. Capt. James Bomar was the skipper on a fast smooth and unevenly transition back to the north. Morris Hamilton, the station manager at Newark, was on hand when I arrived and we had a profitable talk on traffic matters before I departed for Washington on Eastern. Hamilton has some good traffic handling ideas; strikes me as being a 'comer' on the traffic side.

Conclusions after seeing 16 of the 24 current stops of the National system:

Everybody is trying hard to do a job. There were remarkably few rough spots, no bad ones that I saw. If any one station was below par, it was Miami at the airport, which could stand more expert supervision. But by and large the impression was excellent—especially at the smaller stops. What I wanted to find out was what sort of service National was giving the smaller communities, for the small community is vitally important to the future potential of the airline business. What I found out was most encouraging—National is giving service and it is being patronized. The load factors testify to this. Considering the very rapid expansion experienced by National in a very short period of time, an expansion from a small regional carrier into an integrated trunk system, it has done very well. The passengers like the service and apparently there are many "regulars" on the trans-Gulf route. By and large the planes operated on time.

National has its slips, as all airlines are having. A mechanical on any one of its planes throws the traffic pattern out of gear. But there was much less confusion along the line than has been observed elsewhere and the handling of the DC-4s was about the best I've seen anywhere. The employees generally are courteous and doing their best to win friends for National. It was my first trip on National. It won't be my last.

National Moves To Million Dollar Miami Headquarters

Port Authority Protests Planes Crossing Highway

NATIONAL Airlines is well established in its new system headquarters at Miami, following a move of all offices from Jacksonville and the building of the first unit of a million-dollar maintenance and overhaul base adjacent to the 36th Street Airport at Miami.

Lockheed Lodestar maintenance and overhaul remains for the time being at Jacksonville, but when the Miami building program is completed, everything will be concentrated at the latter city.

National's nose hangar, the first constructed by any airline, has attracted considerable interest and other airlines are either definitely planning or are considering the construction of similar types.

The airline purchased 62 acres of land across the road at the east end of the 36th Street Airport and the first unit of a series of buildings is in full operation. Two DC-4s can be accommodated and a second unit accommodating two more DC-4s or DC-6s is to be built shortly. The overhang canopy provides 40 feet coverage for the nose of a DC-4, 20 feet from the canopy, and 20 feet from within the building itself. When two planes are in for overhaul, there is a 60-foot separation between the noses within the building. (See photo on page 20).

J. D. Crane, v.p. in charge of maintenance and engineering, who has been with National for seven years, says the nose hangar has worked out satisfactorily during the three months in which it has been in use. Instrument, radio and other shops are on the second floor, with the main stock room easily accessible on the ground floor. A traveling beam in each nose compartment of the hangar is used to take off the engines. There are 550 employees at the base.

Nose hangars of this type were used by the Navy at Honolulu, and in Alaska. While generally designed for use in warm climates, where outdoor work is permissible most of the year, similar hangars may be designed for handling of large planes in the north. Completely-enclosed hangars run into big money and the large number of big transports coming into service may make necessary some such modification in overhaul plans.

National is using portable canvas docks for daily checks and this practice is being followed by other airlines at Miami. Engine overhaul is being retained at Jacksonville until the Miami building program is completed. When the DC-6s arrive, National will have to overhaul three types. The Wright 202A Cyclone is used in the Lodestar, the Pratt & Whitney 2SD13G in the DC-4, and the Pratt & Whitney R2800-CA15 will be used in the DC-6. DC-4 engines are being overhauled at about 990 to 995 hours and Crane reports that there has been no spark plug failures since March. He pays tribute to the B. G. RB-19R spark plugs for this record.

It is planned to build an administration building on the 62-acre tract, but for the present National is maintaining its executive offices in the Aviation Building, 3240 N. W. 27th Avenue, about a mile east of the 36th Street Airport. The Aviation Building was an uncompleted hotel for many years, later taken over as a chicken farm, and then made into an office building for use by the Embry-Riddle aviation school. The Navy was the last tenant of the building. National has several floors and the executives eat lunch together in a penthouse. The quarters are among the best in the Miami area. TACA Airways occupies space in the building also.

Another recent building move by National is the leasing of 5,000 sq. ft. of ticket and terminal space in a new building under construction at Collins Avenue and Lincoln Road, Miami Beach. It is one of the choice locations on the beach, with limousine loading facilities adjacent to the building. Pan American and others may soon take space in the same building, the plan being to make the structure a passenger terminal for the resort area.

National had its first base at St. Petersburg but moved to Jacksonville Municipal Airport when the company expanded. The latest move to Miami is expected to be permanent. The company has found difficulty, as all airlines have, in obtaining adequate personnel for its maintenance shops. Competitive bidding by non-scheduled and charter operators for workers has been a tough factor for a number of the scheduled airlines in the Miami area.

At the moment National is being battled by the battle-minded Miami Port Authority which doesn't seem to be on peaceful relations with anyone in aviation. Reason for the National fight is the airline's base across the highway from the airport. The Authority didn't like National to invest in a base outside the airport and threatens to prevent National airplanes from crossing the highway because of delays to highway traffic and because airplanes create hazards. Irony of this attitude is that there is a railroad crossing a short distance away without even a traffic light, while National has provided traffic lights for warning and stopping automobiles when one of its planes is taxiing across. Traffic delays due to plane crossings are insignificant compared to traffic delays at Miami's multitude of canal and river bridges and at railroad crossings.

WAA Allocates 38 Army DC-4's To Nine International Lines

Nine U. S. foreign flag carriers were allocated a total of 38 C-54-B and D type four engine surplus Douglas transport planes on Aug. 21 by the War Assets Administration as a top policy government move to strengthen this country's position in the field of international air commerce. Most of the planes went to carriers who have recently been given new route certificates to foreign countries.

Acting on a directive issued by the Civilian Production Administration that War Assets sell these planes to the airlines, WAA made the following allocations: American Overseas 1, Chicago and Southern 2, Colonial 2, Eastern 2, Northwest 5, Pan American 16, Panagra 2, TWA 4 and United 4.

The action stemmed from recommendations made by the Air Coordinating Committee after it had studied methods for relieving the emergency in international air travel caused by lack of sufficient equipment to both adequately serve existing routes and institute the new services which recently have been authorized by the Civil Aeronautics Board. Temporary grounding of the Lockheed Constellations also was a factor in the decision.

After the War Department had indicated its willingness to declare the planes surplus, ACC obtained approval of John R. Steelman, director of Mobilization and Reconversion who in turn had the Civilian Production Administration issue the directive to WAA. The actual allocation was made on recommendations of the Civil Aeronautics Board.

As this was written, there was pending in the District Court of the District of Columbia an injunction suit filed by George W. Tompkins, president and majority stockholder of Air Travelers—a veteran-owned non-scheduled cargo carrier—who hoped to block the final sale of these planes on the grounds that his company had held a priority for the purchase of nine surplus C-54 aircraft since May 1 but was not able to obtain them because WAA said none was available.



Miami Beach Terminal—Here is an architect's drawing of a \$1,500,000 air terminal building being erected in Miami Beach, Fla., to serve the resort area. National Airlines will occupy 5000 of the 27,000 square feet available. Other airlines plan to take space. Limousine service to Miami airport will be available. Building is to be completed prior to opening of this winter's season.

Airline Safety Record Shows Rapid Upswing In Ten Year Period

As measured by miles operated per passenger fatality, airline safety has been on a marked upgrade during the past decade while the railroad safety factor has declined sharply. (See chart at right)

During 1936, Class 1 railroads operated 25,292,000 miles for each of their 16 passengers killed on trains, and the domestic airlines 1,449,000 plane miles for each of their 44 passenger fatalities. Ten years later, in 1945, the miles operated per fatality dropped to 3,647,000 for the railroads, while the airline figure stood at 2,877,000. For the last three years of the decade, the airlines averaged 3,515,000 miles per passenger fatality, over a million more than the 2,459,000 miles averaged by the Class 1 railroads during the same period.

Comparison of the airline-railroad miles operated for each passenger fatality in the period 1936-45 is shown in the accompanying table and chart, with figures derived from official Civil Aeronautics Administration and Interstate Commerce Commission sources. The railroad figures are for Class I lines, and include only rail passengers killed while actually on the trains.

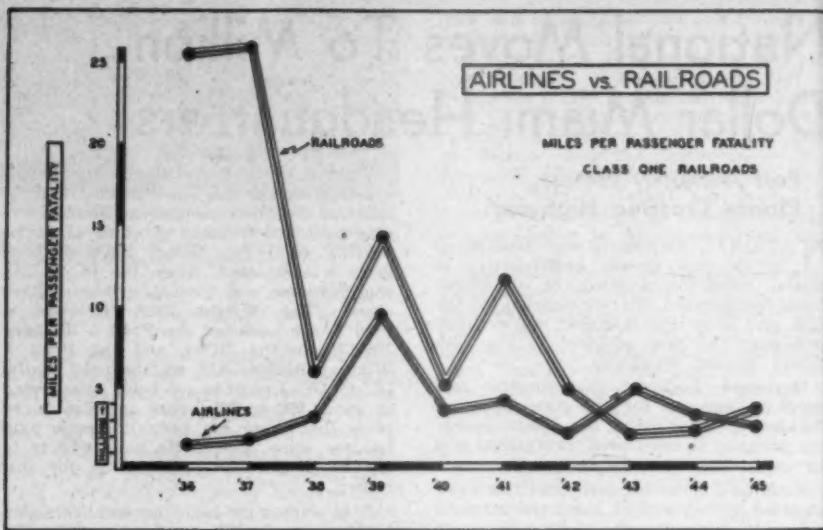
	Airline Fatalities	Plane Miles Per Fatality	Train Fatalities	Miles Per Fatality
1936	44	1,449,000	16	25,292,000
1937	40	1,680,000	18	26,354,000
1938	35	2,785,000	63	8,707,000
1939	9	9,172,000	27	14,477,000
1940	38	3,109,000	75	8,221,000
1941	35	3,800,000	33	12,147,000
1942	35	2,602,000	91	4,686,000
1943	32	4,709,000	283	1,631,000
1944	48	2,963,000	228	2,000,000
1945	76	2,877,000	132	3,647,000

Critical Workers Get Draft Consideration

Critical production and transportation workers have been added to the list of registrants to be given "the most serious consideration for occupational deferment" by local draft boards when properly certified by the appropriate government agency, Selective Service National Headquarters announced.

Extension of deferment consideration to four new categories of essential men was made at the request of the Director of War Mobilization and Reconversion. These include college and university teachers, home construction workers, and critical production and transportation workers.

Under the revised plan, employers and self-employed registrants will continue to submit Form 42A Special (Revised), an occupational affidavit, setting forth the essentiality to the national existence of individual registrants. This affidavit will be submitted in specified instances to a designated federal agency, which must certify to the Director of Selective Service that the registrant's deferment is imperative. Registrants so certified will be given the "most serious consideration," by their local draft boards. In the case of production and transport workers, the Civilian Production Administration is the certifying agency.



Boeing Offers Stratofreighter As Low-Cost Cargo Carrier; Has Advanced Features

The Boeing Stratofreighter, a new double-deck, four engine, all-cargo transport, designed to operate at the unprecedented low direct cost of 3.9c per ton mile, has been announced by William B. Allen, president of Boeing Aircraft Co. The Stratofreighter, with a volume of nearly twice that of the average boxcar, is a sister ship to the 80-passenger Boeing Stratocruiser, 49 of which have already been ordered by five major world airlines.

Powered by four Pratt & Whitney 3500 h.p. engines and Curtiss electric propellers, the 67½ ton cargo plane has a useable volume of 6,140 cubic feet and is expected to carry a maximum payload of 41,000 lbs., at speeds ranging between 300 and 350 m.p.h. Outstanding features of the Stratofreighter are the four cargo compartments, each separately accessible for maximum versatility. Rapid and economical loading provisions have been made for each compartment, including an electric power hoist and crane mounted in the clam shell door opening at the rear, where main loads are distributed. The compartment doors are approximately 13 feet long and permit the loading of packages six feet high, six feet wide and 15 feet long. The upper deck

of the plane will accommodate as many as four such containers.

Cargo may be loaded directly from the ground or from trucks, as illustrated, by use of the electric hoist. Once on the upper deck, packages are moved to the desired compartment location by an overhead power rail. Advanced heating, refrigeration and altitude conditioning systems are to be installed to provide a wide range of control in the various compartments. For the first time ever on a commercial cargo transport, General Electric BH-4 turbosuperchargers will be installed. The Stratofreighter is designed to maintain sea level conditions up to 15,000 feet and 6,000 foot atmospheric conditions at 25,000 feet.

Aircraft Exports For Six Months Worth \$38,006,000

Exports of aircraft and engines for the first six months of 1946 represented a total valuation of \$38,006,000, according to a report issued by Aircraft Industries Association. Aircraft, including powered types and those without engines, numbered 842 in export statistics. Their value was \$32,418,000. Engine values were \$5,588,000.



Boeing Stratofreighter—With a volume nearly twice that of an average railroad box car, this sister ship of the Stratocruiser, is designed to operate at the low cost of 3.9 cents per ton mile. Its cruising speed is expected to range between 300 and 350 m.p.h.

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United Air Lines Builds Own Passenger Terminals

Carrier Spending \$740,000 In Construction Program

UNITED AIR LINES announced that it was pursuing its policy of building its own passenger terminals as local conditions permit with construction underway on such units at Merced and Modesto, Calif., Troutdale, Ore., and Gooding, Idaho.

The company also is building temporary additions to passenger stations at Toledo and Des Moines. In all, United has expended or is spending about \$740,000 on its passenger terminal program.

Passenger stations already constructed by United are at Portland, Medford, Eugene and Salem, Ore.; Walla Walla and Bellingham, Wash., and Santa Barbara, Calif. A temporary passenger station was built at Los Angeles municipal airport for use in the company's operations to Catalina.

In addition, United has revamped military buildings for passenger station use at Spokane, Wash., Lincoln and Grand Island, Neb., and Eureka, Calif. Plans now are being drawn for a permanent passenger station at Reno, Nev., and Salem, Ore., to replace temporary structures; and for a new terminal at Visalia, Calif.

United attempts to incorporate as much local "atmosphere" into passenger terminals as possible. For example, its Santa Barbara terminal is of the California mission type and various of its Pacific Northwest terminals feature the use of local woods, pointing up the importance of the lumber industry.

While the passenger terminals follow a theme of pointing up industries and attractions of local import, traffic offices take an opposite tack, stressing through decoration and photo-murals the attractions of distant points.

United's entire building program involves a total of about \$20,000,000. Included are the construction of a major maintenance base at San Francisco, a training school at Cheyenne, new hangars at Chicago, San Francisco, Los Angeles and Seattle, remodeling the company's hangar at Denver and considerable renovation on present or new traffic and reservations office facilities.

United already has opened new traffic offices at Detroit, Omaha, Cheyenne and Toledo this year, and construction or remodeling of downtown ticket offices in Los Angeles, Denver, Chicago, Cleveland, Pittsburgh, Philadelphia, Akron, Boise, Oakland and Fresno is underway.

New and enlarged offices, constructed during the war, include two in San Francisco; new office in Seattle and redesigned offices in San Diego, Long Beach, Reno, Tacoma, Vancouver, Omaha, Washington, Boston, Hartford, Chicago and Milwaukee.

W. A. Patterson United president, long has advocated the policy of airlines paying their own way and has expressed United's desire to build its own terminal facilities where possible and appropriate. In a great many cases, of course, joint airline use of such facilities makes it impossible for any one airline to build or own passenger terminals, the company said.

CAB Approves Plans For Dealing With Airline 'No Shows'

The first portion of the airlines' joint program for meeting the "no show" problem went into effect Aug. 25 following approval by the Civil Aeronautics Board of a tariff revision proposed by the carriers to permit them to resell reserved seat space if tickets are not picked up by the customer within time limits set when the sale is made.

With the exception of Colonial, which will require six-hour cancellation time on reservations, the ATA members airlines will adhere to a time limitation of three hours before departure.

The second step in the no-show penalty plan involves service charges based on the price of the ticket involved. These will be levied against passengers who fail properly to cancel reservations. These penalties will be effective Oct. 15, provided the CAB approves.

As the penalty provisions now stand, the airlines will levy a service charge of 25% of the price of the ticket when a passenger fails properly to cancel the reservation at least three hours before flight time.

United Air Lines originally had proposed a 10% penalty, but withdrew its tariff to be in conformity with the remainder of the industry. United also had asked a four-hour cancellation limitation period, but said it would go along on the three-hour plan.

For Air Education

The Tennessee Bureau of Aeronautics has enlisted the personnel and facilities of the aviation department of the University of Tennessee to aid in air education in the state and help prepare a state-wide airport plan to fit into the national airport program. Members of the joint staffs are conducting a survey of current aviation laws and will make recommendations for needed changes at the next meeting of the state legislature.

Use of Facilities

Operations of the scheduled airlines of the United States utilize less than 25% of the total use of all airports on their regular route stops, it has been reported by Robert Ramspeck, v. p., of the Air Transport Association. The Army and Navy use has been listed as 10% and the remaining 57% to other commercial and private operators. Scheduled airline use of the federal airways, based on complete reports for 1946, would probably indicate about one-third, Ramspeck said.

PAA Offers To Share Latin American Facilities With Others

Pan American Airways Inc. has offered to share its facilities throughout Latin America with U. S. airlines newly certified in that area and with any Latin American lines that may be flying to the U. S., as a PAA spokesman said.

By its move, PAA acceded to the U. S. policy of competition in Latin America, but it was made clear that the company still believes in a chosen instrument and reserves "the right to advocate a change in national policy."

The PAA facilities, which are extensive, include close to 200 radio and weather stations, airports, terminal facilities, ticket offices, maintenance bases, ramps, etc.

The offer, which would be on the basis of "equitable compensation" for the services rendered, with provision made for arbitration if offers were not acceptable, would be of assistance to some of the airlines that received certificates in the recent Latin American decision. These included Braniff Airways, Eastern Air Line, Chicago & Southern Air Lines, National Airlines, Colonial Airlines and American Airlines. American has its own facilities in Mexico.

Although most lines have not commented on the offer, it is known that the president of at least one of the companies involved has contacted PAA President Juan T. Trippe, expressing definite interest in the deal.

Five Cent Air Mail For All U. S. Territories

An airmail postage rate of 5c an ounce between all United States territory and members of the armed forces abroad, will become effective Oct. 1, under a regulation issued August 14 by Postmaster General Robert E. Hannegan. The existing rate is 6c a half-ounce. The new regulation was issued immediately after President Truman signed the legislation reducing the domestic air mail rate, from 8c to 5c an ounce. Existing rates now range as high as 90c an ounce in some regions. The rate reduction is expected to bring an unprecedented volume of air mail and materially increase revenue.



Photo panel shows United-built passenger terminals at (Left to Right) Santa Barbara, Calif., Bellingham, Wash., and Eugene, Ore.

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American and United Await Delivery of DC-6 Sleepers

Factory And Airlines to Unite In Exploitation

PRETENTIOUS plans for an outstanding introductory exploitation campaign for the DC-6 now are being mapped by the Douglas Aircraft Company in cooperation with American Airlines and United Air Lines, which are scheduled to receive delivery of the first two planes simultaneously.

The three-way hookup, which presents the rather unique situation of two sharply competitive airlines uniting in a joint promotional effort, results from the fact that American and United signed contracts for the new equipment at the same time and a stipulation of the bargain was the deal for twin deliveries of the first ships so that neither company could get the jump on the other.

Actual date of delivery is still a question mark on the Douglas calendar, but the first production model has been flown and recently there has been some improvement in deliveries from suppliers so that now the Douglas production staff hopes it may be able to pick up on some of the delays caused by this source. Barring unexpected further delays, it seems likely delivery of the first two ships to American and United can be made before the end of the year.

The first DC-6's to come off the production line will be sleepers. American, United, Panagra and Braniff have ordered the sleepers, which will have 26 berths. American and United will put sleepers in service on their domestic transcontinental routes. Panagra and Braniff will use them on their South American runs.

Douglas has announced orders for 126 of the DC-6's, but it has signed a number of other contracts which have not been made public. It is understood actual orders approximate 150. Biggest announced order is 50 for American followed by United with 35. Of American's fleet of 50, 15 will be sleepers. United is taking 10 sleepers. Other lines whose orders have been announced are Western, National, PCA, and Sabena.

Only major difference in model specifications on the part of purchasers is in propellers. American will use Curtiss electric propellers. The other lines will use Hamilton Standard props.

Nels B. Fry In Charge Of TACA Traffic Department

George T. Cussen has resigned as director of traffic for TACA Airways Agency, Inc. He has been in air transportation since 1928, having been associated with TWA for 10 years. He was assistant to the general traffic manager of Eastern Air Lines before joining TACA.

Nels B. Fry, who joined TACA recently after long service with United Air Lines, has been appointed acting vice president of traffic, reporting directly to President Julius C. Holmes. He will have complete responsibility for the traffic department during the absence from the U. S. of the vice president, Charles Gallo, who is in Rio de Janeiro.

All American Aviation Places First Orders For Lockheed Satluns

All American Aviation has purchased five Lockheed Satluns for delivery early in 1947, and signed options with Lockheed Aircraft Corp., for 20 more of the 14-passenger feeder aircraft. It was Lockheed's first sale on the Saturn. Purchase price was \$125,000 per airplane.

Robert M. Love, AAA president, said the Saturn purchased by his company would be equipped for both conventional passenger service and for combination passenger-pickup service. All American has applied for passenger certificates to 121 cities on its present and proposed routes.

Love said space in either the forward or rear cargo bins would be adequate to install the pickup device, but that no decision had been made as to which space the mechanism would occupy.

The Saturn has a cruising speed in excess of 200 mph., and Love said that experiments already concluded by All American had shown that pickups of 100 lbs. can be made at that speed.

Direct operating cost of the Saturn was given at 21c per mile, less than half that of the DC-3. Love said that passenger fares on All American's routes would be higher than those charged by the so-called trunk-line carriers.

Geisse Resigns

John H. Geisse, assistant to the Administrator for Civil Aeronautics for personal flying development, has resigned to enter private business. He will organize a company, to operate on a nationwide basis, for the purpose of renting planes on a more advantageous basis to private flyers.



Contracts For Boeings—

Bart Zimmerly, president of Empire Air Lines, signs a contract for \$445,000 worth of Boeing 417's while Wellwood E. Beall, Boeing v. p., in charge of sales and engineering, looks on. The twin-engine, high wing, 20-passenger planes are scheduled for delivery in 1947, to be placed in service on routes in Washington, Oregon and Idaho.

William R. Kent Heads Training Society

William R. Kent, Memphis, Tenn., has been elected President of the Aeronautical Training Society, for the coming year. The election was held during the annual convention of ATS at Denver. Other officers named by the delegates were Major C. C. Moseley, Glendale, Calif., vice president and Wayne Weishaar was reelected secretary-treasurer.

Members of the board of directors of ATS for the next twelve months will be: E. Merritt Anderson, Capt. Maxwell W. Balfour, Hal S. Darr, William J. Graham, Beverly E. Howard, Albert I. Lodwick, Major William F. Long, "Tex" Rankin, Rudy A. Van Devere, Harry S. White, Kent and Moseley.

New Law Firm

Announcement has been made of the formation of a partnership for the general practice of law in Washington, D. C., under the firm name of Douglas & Proctor by James H. Douglas, Jr., Robert Proctor, Malcolm A. MacIntyre and Samuel E. Gates.



For Spring Delivery—Officials of Continental Air Lines and Consolidated Vultee sign a contract for the delivery of 15 Convair 240 transports. Capable of 337 m.p.h. and carrying 40 passengers, the 240 will embrace many new features such as heated wings and surfaces, cabin pressurization and auxiliary jet exhaust augmentation. Power is provided by two Pratt & Whitney engines of 2400 h.p. each. With three-blade propellers, the 240 is capable of taking off and climbing on one engine. Left to right: Sheldon G. Cooper, general counsel and director of Continental; Robert F. Six, president of the airline; J. M. Laddie, Convair executive v. p.; and William A. Bess, Convair v. p. in charge of sales.

National Affairs and Congress

First C-W Post War Type

The Navy is taking delivery of a new model of the Seahawk scout plane, being manufactured by Curtiss-Wright Corporation's Columbus, O., plant. The model, designated as SC-2, is the first post-war plane to be turned out on a production schedule by the company.

AAF Publicity Chief

Brig. Gen. Emmett (Rosie) O'Donnell, commander of the first B-29 bombing attack on Tokyo, has been named director of information of the Army Air Forces. He replaces Lieut. Gen. Harold L. George, who has been handling AAF publicity in addition to his duties as commanding general of the ATC.

For Navy Research

The Navy announced establishment of a permanent Office of Naval Research to replace the old temporary Office of Research and Inventions. Rear Adm. Harold G. Bowen has been named director, with Rear Adm. Luis de Florez as assistant director.

Rapid Shutter

Development of a high-speed camera capable of taking photos at 200,000 frames a second and able to "stop" an object moving at 4,760 mph, was announced by NACA. The camera was developed for the specific purpose of enabling the study of "detonation," the knocking combustion in gasoline engines.

Accepts Conference

The United States officially completed its acceptance of the Convention on International Civil Aviation—which was approved by the Senate on July 25—by depositing the instruments of ratification with the Department of State on Aug. 9.



New Eyes For The Fleet—Here is the Navy's newest catapult-launched scout-observation plane, designed and built by Edo Aircraft Corp. Powered by a Ranger inverted 12 of 550 h.p., the XOSE-I has a range of more than 1000 miles and a top speed in excess of 200 m.p.h.



Seeks Target—The first action picture of 'GAPA', Boeing Aircraft Company's ground-to-air piloted aircraft, a pencil-thin supersonic guided missile capable of seeking out and destroying enemy aircraft or missiles which might threaten our shores in time of war. Boeing experimental missiles will be fired this year from Wendover Field, Utah.

Masefield Recalled To Civil Air Post In Britain

Peter Masefield, British civil air attache in Washington, will return to England about Oct. 1 to take over the newly-created job of Director General of Planning and Projects in the Ministry of Civil Aviation. This is a new division of the Ministry, which has just been reorganized, and Masefield will be engaged in long-range planning and coordination of policy. Until his successor in Washington is named at the end of this year, Air Vice Marshal Robert P. Wilcock will act as civil air attache. Nigel Bicknell has recently been appointed assistant civil air attache in Washington.

Air Exports Increase

Exports of U. S. merchandise by air, on a steady upward trend since February, reached a total of 1,785,000 pounds valued at \$9,217,000 in May, the Department of Commerce reported. The May increase was 5% in dollar value and 14% in shipping weight over April. However, while the shipping weight of imports increased 37% in May to 326,000 pounds, the value of imports was declining from \$4,648,000 to \$3,840,000.

Granted Air Rights

The government of Newfoundland has granted the U. S. four freedom rights, pending completion of negotiations on a five freedoms agreement. Grant of these rights allows U. S. airlines to carry traffic between the U. S. and Newfoundland, and vice versa. Fifth freedom, when granted, will permit the carriage of traffic between Newfoundland and Europe.

Reduce Surplus Prices

The War Assets Administration has announced that the prices of light transport planes and primary trainers have been reduced from one to three price brackets. The action was taken to make allowances for deterioration of the stock since prices were last fixed. Beech, Cessna and Timm planes are among those affected by the price change.



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Foreign Air News

By Frank M. Holz

PICAO Regional Meeting—The Provisional International Civil Aviation Organization (PICAO) convened its Caribbean Regional Air Navigation Conference Aug. 26 in Washington, D. C. About 250 delegates, advisers and observers were registered. Official participants are: Great Britain, France, Netherlands, Canada, United States, Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Peru and Venezuela. Australia, Czechoslovakia and China were expected to send observers. The conference will last about three weeks and will cover the same general topics regarding regional application of PICAO rules and standards as were discussed at previous conferences at Dublin and Paris.

New Rates Set Up—New rates, travel and shipping regulations were adopted for scheduled air services between Europe and South America by a route conference held in Paris early last month by the International Air Transport Association (IATA). Tariff decisions included a sliding scale for passenger fares on long hauls; an increase in free baggage allowances from 25 to 35 kilograms; 10% reduction on round trip tickets; top age limit of 12 years for children's reduced rates; provisions for stopovers en route. Participating companies were: KLM Royal Dutch Airlines, SABENA (Belgium), SILA (Sweden), Air France, British South American Airways, Iberia (Spain), Panair do Brasil, Cruzeiro (Brazil), and FAMA (Argentina). Paulo Sampaio, president of Panair do Brasil, was elected president of the regional conference.

Form Charter Group—British operators of charter and non-scheduled commercial air services have formed the British Air Charter Assn. The Association will carry on such work as cooperation with other aviation organizations, organizing technical assistance for the operators, negotiating insurance arrangements, drawing up standard forms of charter-party, transport contracts, etc. Temporary address is 32 Saville Row, London W. 1 and the executive secretary is H. R. Gillam, who was secretary of the Society of British Aircraft Constructors up to the end of 1945.

Transport Agreement Signed—The U. S. and Lebanon signed an air transport agreement on Aug. 11 which gives the U. S. transit rights across Lebanese territory and a Fifth Freedom traffic stop at Beirut. This will permit Pan American Airways to stop at the Lebanese capital on its route to India. Lebanon received reciprocal rights in U. S. territory. The U. S. has also completed temporary arrangements with Newfoundland which include the first Four Freedoms, permitting traffic between Newfoundland and the U. S. A final agreement containing the Fifth Freedom permitting intermediate traffic on transatlantic routes is now being discussed.

• A "Flying Display and Exhibition" will be organized in September by the Society of British Aircraft Constructors at the Handley Page Airport, Radlett, Hertfordshire. Two hundred British companies—manufacturers of aircraft, engines, propellers, instruments, components and materials—will display their products. Exhibits will include modern types of commercial and combat aircraft and the latest British power plants, both piston and gas turbine types. This display, covering more than two acres, will be opened to invited visitors Sept. 12 and 13. On the second day, there will be a flying display by jet propulsion fighters, bombers and the several new types of British post-war civil transports.

• Morton Air Services, a charter operation based at Croydon Airport near London, recently conducted a 17-day tour of Europe for some American and British business men who wanted to survey markets for their products. Morton has also arranged a number of one-day round trips within England for London business men pressed for time. The firm's most notable flight is possibly one from Bombay to London with the Maharajah of Udaipur. Most of Morton's charter flights are made with deHavilland Rapides but the company has recently acquired the first five-passenger Airspeed Consul to be delivered to any commercial operator.

• Aerovias Internacionales de Mexico, which operates between Ensenada and Mexico City, has been renamed Aerovias Reforma, after Mexico City's Hotel Reforma owned by Alberto R. Pani, the airline's chief backer. Aerovias Reforma is operating with one converted Douglas C-47 and has recently contracted with Aviation Maintenance Corporation of Van Nuys, Calif., for conversion of three more C-47s.

Scandinavian Airlines Sign Pool Agreement Valid For Five Years

The long-awaited transatlantic pool of three Scandinavian airlines is now formally completed. Representatives of Svensk Interkontinental Lufttrafik (SILA) of Sweden, Det Norske Luftfartselskap (DNL) of Norway and Det Danske Luftfartselskab (DDL) of Denmark signed an agreement in Oslo August 1 for the joint operation of transatlantic services as the Scandinavian Airlines System. The combine is to be popularly known as Scandair. On transatlantic services there will be complete pooling of personnel and equipment. A Danish pilot may be in charge of a Swedish aircraft, with crew members from all three countries. However, each of the three companies will retain its identity for domestic and European operations.

Per A. Norlin, president of SILA, was elected first president of the new enterprise. There will be a board of directors of six members, two from each country, with the chairmanship rotating annually among Denmark, Norway and Sweden. The pooling agreement is valid for five years.

Service will begin with seven Douglas DC-4s, variously purchased by SILA, DNL and DNL, fitted to seat 28 passengers. The four Boeing Stratocruisers ordered by SILA in February for delivery early in 1947 will also be placed in the Scandair fleet. It is believed that a revenue distribution formula will initially allot 44% of the Scandair income to SILA in view of the Swedish company's greater contribution of equipment, personnel and traffic organization. DDL and DNL would each be allotted 28%, according to reports. These ratios may later be changed as indicated by actual experience.

Start of scheduled transatlantic services to the U. S. has been postponed several times pending the signing of the agreement according to a plan dating back to 1939 but shelved because of the war. Regular commercial service is now scheduled to begin Sept. 21 on a minimum frequency of one round trip weekly, to be increased to daily flights by early 1947. Initial service will be between Stockholm and New York. Intermediate landings will be made alternately at Oslo and Copenhagen. Tore H. Nilert, SILA representative in the U. S., will head Scandair activities in North America, cooperating with Max Westphal and Capt. Gert Meidell, U. S. representatives for DDL and DNL respectively. Mark J. Meidel, formerly Lt. Colonel in the USAAF in charge of B-29 maintenance for the 21st Bomber Command, has been named U. S. regional operations manager for Scandair. U. S. headquarters of the pool and also of its three component companies is 270 Park Ave., New York.

SILA has been operating test flights via Africa to Brazil and Argentina and these Latin American routes will later also be integrated into the Scandair operations.

• The Peruvian Air Ministry has granted a permit to fly over Peruvian territory to the Chilean steamship firm Compania Sud Americana de Vapores. Initial operations of the company are expected to be flights along the west coast of South America.

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Cargo Lines Are Hopeful, 'Even Optimistic,' Says Prescott

IAA Head Sees Pioneer Work Growing into Big Business

(The following letter, written by Robert W. Prescott, president of the Independent Airfreight Association, and president of National Skyway Freight Corp., was occasioned by AMERICAN AVIATION's lead story, "Cargo Carriers Face Losing Proposition," in the August 1 issue. AMERICAN AVIATION is happy to print in full, Mr. Prescott's comments on the future of the non-scheduled airfreight carriers.)

"The Independent Airfreight Association has been formed to represent the interests of companies which are engaged in the contract carriage of freight by air. The organization, therefore, has a special interest in the future of the airfreight industry.

"As the nation's newest and fastest growing postwar industry, it provides a service to industry and agriculture which is quite generally conceded to fill a definite need. It serves the public interest. It was created without benefit of government subsidies or assistance such as regularly has been extended in one way or another to most other forms of transportation. It was founded by veterans of World War II who have invested their money and their futures in it.

Industry is Young

"In AMERICAN AVIATION for August 1, 1946, Mr. David Shawe painted a rather gloomy picture of the prospects of this new industry. We have no disposition to quarrel with Mr. Shawe regarding his observations, but we feel that behind the haze which somewhat beclouds outward aspects of the new industry right now there is a brighter side which deserves serious consideration.

"In the interests of the steadily growing number of shippers who are boosting to tremendous proportions the volume and variety of airfreight being flown to established and new markets, we feel that the brighter side of the picture should be given so the whole story of the airfreight industry may be told to those interested.

"The industry is young. Pioneer companies date back about a year. But the majority have been in operation only a few months.

"Concrete proof that the potential volume of freight is more than ample and that the demand for airfreight service is becoming more and more insistent is afforded by the ton-mile record of one of the leading airfreight companies. In March of this year, when this line started in business, it flew a total of 61,247 revenue ton-miles. In July, 1946, the revenue ton-mile total was 938,124. The revenue ton-mile total of this one company for the month of August alone is expected to reach 2,000,000.

"The above is not an isolated case. Every member of the Independent Airfreight Association reports substantial increases in total revenue tonnage.

"It may be true that some of the operators may be doomed to fall by the wayside. But when we recall the history of practically every form of transportation in this country, and the history of many

other industries as well, we find abundant reason for the airfreight industry to feel encouraged, hopeful, even optimistic.

"Take the automobile industry, for instance. In its early days hundreds of manufacturers sprouted virtually overnight. The industry went through many hectic years of cut-throat competition and other malpractices that reduced the number of builders from hundreds to less than a dozen. But no one will question that today it is one of the world's great industries.

"The railroads, too, underwent tortures of severe growing pains. If it were not for government subsidies and land grants, where would the railroads be? In contrast, the airfreight industry asks no government subsidies or assistance of any kind.

"Highway freight hauling by truck was far from a spectacular financial success in its infancy. Millions of dollars were lost and many companies went to the wall before highway hauling became soundly established.

"Other parallels are furnished by the motion picture industry, radio, and today, television. Millions have been sunk in bringing television into being as a social and commercial benefit to the country, yet many consider it still in its experimental stage.

"These and other industries went through stages of being ridiculed if not even outrightly vilified by the public and in public prints.

"But they survived, grew strong and today are, for the most part, thriving financially because they served or gave positive evidence that they will serve the public need.

"It is not reasonable, then, to assume that the prospects of the airfreight industry are equally as good as those of the other industries mentioned. Industry and agriculture wants and need airfreight and have proved it by the vastly increased volume of shipments being entrusted to this medium of transportation. Manifestly, airfreight is a reality. It is here to stay. Shipments are not novelties but a wide variety of products and necessities representing many phases of American business.

"Still another unmistakable indication

of the soundness of the industry is the calibre of top management of the more successful companies. They are young men, to be sure. But most of them held responsible positions in aviation or other businesses before they entered the military service. While fighting for their country many were officers in highly responsible posts of the services. Many millions of dollars of equipment and thousands upon thousands of lives were entrusted to their judgment and ability. In that crucible of experience their capabilities were enhanced; judgments matured. They and millions of others like them are the backbone and the fibre of the America of today and tomorrow.

"Rigid checking of non-scheduled airfreight operators by the CAA has disclosed, for the most part, complete cooperation from the companies and strict adherence to basically sound maintenance standards and procedures.

Look on Bright Side

"Surely the men whose money is invested in the business and whose futures depend upon it are not going to risk all they hold valuable by neglecting to maintain the expensive equipment which is the foundation of their whole enterprise.

"Obviously, to understand and appreciate the problems as well as the promise of airfreight, it is necessary to look at the bright as well as the dark side of the picture.

"The industry asks only for a fair chance to survive; fair treatment from the CAB and other government regulatory agencies; fair treatment from those who influence public opinion; maintenance in American of individual competitive enterprise in the democratic manner.

"Pledging itself to work continuously toward these ends, the Independent Airfreight Association Inc., in official comments filed recently with the CAB, asked that strictly airfreight service be set apart from passenger aviation regulations and that stringent regulatory controls be postponed, until adequate facts are available regarding this new industry's proper niche in modern transportation."

Iroquois Names Officers

Iroquois Airlines, Inc., formerly known as the Durham New York Helicopter, Inc., has announced the election of the following officers: Ralph O. Lockwood, executive v. p. and director; Charles J. Tubbs, chief pilot; Stanley A. Drinkwater, supt. of maintenance; Frederick Smithson, assistant to the president, and Milton H. Elliston, assistant to v. p. of operations and maintenance.

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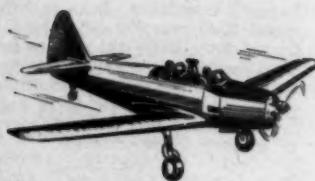
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The War Assets Administration, as a disposal agency for government-owned surplus, has a large inventory of both planes and component parts. This stock-pile is being added to frequently by the Armed Forces as more and more aircraft and equipment is being declared surplus.

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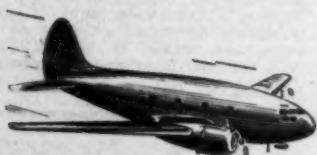
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For more complete details regarding these planes, please write to any War Assets Administration Regional office.

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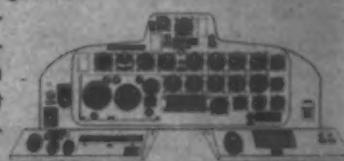
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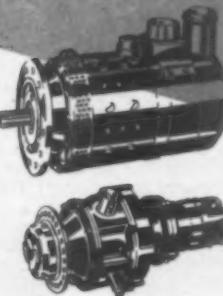
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Flying Tiger Line Plans To Transport Passengers

Would Expand Fleet With Douglas and Martin Types

By FRED HUNTER

THE Flying Tiger Line has placed tentative orders for five Douglas DC-4-1037's and 20 Martin 202 cargo planes looking toward the eventual modernization of the fleet of planes the company operates in non-scheduled service.

Although not "firm" orders and summation somewhat dependent upon how the Civil Aeronautics Board proceeds in its proposed economic regulations, the conditional purchases represent a part of an overall expansion plan now being mapped by Robert W. Prescott, president of the pioneer non-scheduled carrier.

Another step currently in process is the organization of a subsidiary company called the Flying Tiger Transport, Inc. to engage in charter passenger operations, specializing in moving athletic teams, dance orchestras, sight-seers, clubs and similar groups under contract.

The company also is changing the corporate name, National Skyway Freight Corporation, to the Flying Tiger Line, the name by which it is more familiarly known.

Quite freely, Prescott admits his company still is in the "red."

Prepared To Lose

"If it were possible to make money from the start in transporting air cargo, everybody would be in the business," is his reasonable explanation. "Any company, especially one pioneering in a new field, has to be prepared to lose money during the introductory period and we did not expect to be an exception."

The first company to establish itself as a non-scheduled carrier, the Flying Tiger Line was set up in July, 1945, when a group of former Flying Tigers pooled their resources to raise \$87,000, to start the enterprise. This amount was matched by a group of California businessmen to bring the total of capital funds to \$174,000.

The Flying Tigers gradually progressed toward a profitable operation and six months after the inauguration of service the company, in January, 1946, netted a profit of \$1,400.

By this time, however, scores of other non-scheduled operators had entered the field with the inevitable result, a rate war. This threw the Prescott line back into the loss column.

The rate war, however, served a purpose. It brought air freight rates down to approximately 12 cents a ton mile and made them comparable to surface express rates. Here they reached a stabilized level, attracted huge volumes of new business and pointed the way to the great traffic potentialities existing for the air freight carrier.

Since it inaugurated the business of flying cargo on a non-scheduled basis, the Flying Tiger Line has accumulated more than a million and a half miles of experience. They've carried everything from race horses to fragile flowers. And from this experience the company's traffic department has blue-printed the rules which have to be followed in order

to apply sound business methods to the new industry.

No longer does a Flying Tiger plane take off with a one-way load, trusting to the pilot to skirmish around and pick up a return load. The availability of the return load is ascertained first or the rate adjusted to compensate.

Now flying 10 C-47's, the Flying Tiger Line has six more C-47's in process of conversion and also has purchased two C-54's. Two of the C-47's are being converted into DC-3 airliners for the passenger contract subsidiary.

On the basis of current tariffs, no great profits can accrue from the C-47's, but they will fill in until the day when—the CAB willing—the Flying Tigers can take delivery of the DC-4-1037's and the Martins. Capable of grossing 22,700 pounds over a range of 1,500 miles, the four-engined Douglas cargo craft will operate at the low cost of 4.9 per ton mile and enable the non-scheduled operator to return a neat profit at a 12 cents per ton mile rate. By the same token, the Martins will fit in nicely on flights where the payloads are smaller. Grossing 12,000 or 13,000 pounds, the Martin's ton-mile operating costs would be only slightly higher than the bigger Douglas job.

Recently, the Flying Tiger Line obtained \$2,187,500 of new financing through a public stock issue. Following this underwriting, Sam Moshier, president of the Signal Oil Company, became chairman of the board of directors, and several other prominent businessmen went on the board.

Waterman To Transport Air Passengers To London

Waterman Airlines, subsidiary of the Waterman Steamship Co., is scheduled to begin passenger flights between New York and London, Sept. 5. The first flight has been announced to depart from LaGuardia Field with its terminal at Heathrow. The return trip is slated to leave England, Sept. 8.

Open Door Policy For Unscheduled Lines Urged by Wallace

Secretary of Commerce Henry A. Wallace, in a statement filed with the Civil Aeronautics Board regarding the regulation of non-scheduled air services, has urged that the Board "set aside its extremely restrictive interpretation and definition of the term 'non-scheduled' as contained in its decision in Docket No. 1501 and restore the 'open door' policy under its original exemption order." The 24 page statement emphasized that the Department of Commerce's only interest in this case is in the existence of adequate and economical air services by any forms of carriage that can best render such service.

The Secretary of Commerce asserted that the Board's action "to close free entry into a wide range of common carrier air services other than fully scheduled services originally established with air mail payments" was taken without a full and complete hearing to develop much-needed facts in the case, adding that "it is difficult to comprehend by what facts the Board reached its conclusion that public interest requires such action at this time."

From the public interest standpoint, the only important disadvantage that might result from continued free operation of non-scheduled services, Wallace said, would be "the development of excessive competition with scheduled carriers over particular routes, with such resultant dilution of traffic that the government might have to make increased mail pay to the scheduled carriers. There is little evidence that such a situation exists at the present time, and there is little likelihood of its development to any significant degree in the future."

Slick Airways has made its 314 employees part owners of the company through the gift of one share of \$10 par value common stock each, from President Earl Slick. The company plans later to issue stock options to enable employees to purchase additional shares. Recipients of the gift shares were required to sign an option permitting the firm to buy back the stock in the event the employee should leave the company.



Air Show Floor Plan—This is the artist's conception of how the first annual National Aircraft Show will appear, when staged in the giant Fisher Bomber plant at Cleveland Airport, November 15 through 24. The exhibition area is equal to the size of 50 football fields.

Delta Cargo Head Predicts Chief Revenue From Freight

Passenger Incomes To Be Secondary In Ten Years

"Air freight will be the major source of revenue and profit for domestic airlines, within ten years."

This is the opinion expressed by Paul W. Pate, manager of air cargo and mail for Delta Air Lines, following an intensive study and long association with the cargo phases of transportation, both air and surface. Backing up his statement, Pate said:

"I do not feel hesitant making such a prediction because it is my belief that the airlines will follow closely the overall pattern as laid down by the American railroads during their history, the only wide deviation from which will be the faster development of the airlines."

The cargo specialist was referring to the fact that before the development of the steam engine, our railroads carried passengers only. At that time, railroads were nothing more than horse-pulled wooden stagecoaches which ran over crude rail beds. As business developed and improvements in equipment were introduced, the railroad operators turned to freight transportation as a source of revenue. It is at a similar turning point, the certificated airlines find themselves today.

Quoting comparative statistics from the early days of railroading, Pate said, "The railroads continued to grow and develop and, by 1890, freight revenue tripled passenger income. By 1941, freight revenues were nine times greater. Airlines will enjoy the same development, only more rapidly."

Pate revealed that, at present, Delta Air Lines employs two exclusive cargo planes that are called into use only when freight shipments are too large or too heavy for the cargo bins of the combination passenger and freight carriers. The cargo manager believes that this situation will be reversed before long and that his company will be flying a fleet of exclusive freight planes, with the overflow from these being consigned to the cargo bins of the passenger planes.

The Delta air freight specialist also believes that the airline industry will have early need for a large personnel, trained in cargo work. Concerning the employment of such personnel, he said:

"A few months ago, only a few freight specialists had joined the aviation industry. The number has grown, but today, they still amount to less than one percent of all airline personnel. Within five years, I believe the volume of air freight will warrant the employment of trained freight men, by the thousands."

There has been considerable discussion as to the part cargo gliders may play in the future of the air freight business but on this subject, Pate refused to comment other than to say that predictions of the part gliders would take, are too futuristic. There may have been an opening for gliders in the transportation of 100 plane-loads of potatoes, Delta was recently asked to deliver from South Carolina to the eastern market centers.

Concluding his statements, while com-

paring the standings of certificated airlines and the non-scheduled operators, Pate expressed this opinion:

"On exclusive cargo flights, the scheduled airlines will be able to quote cheaper tariffs than contract operators. Scheduled airlines already have the personnel, hangars and maintenance facilities established. The expenses of these are partially offset by other classes of traffic."

The air freight business is expanding rapidly, spurred by the efforts of airlines and air charter operators alike. With the industry showing such future promise, Pate may find few, if any who will be at odds with his prediction that, within a decade, the airlines will speak first of freight and second of passengers.

Pan American Airways Sets Up New Southwest Region

Pan American Airways has established Southern California and the southwestern states as the southwestern region of that airline to serve as the eastern terminus for routes to the far east and the newly certificated route to Australia. Arthur Ayres, who has been the PAA representative in Los Angeles for the past three years, has been named to head the region.

Labor Organizations To Represent Air Employes

The National Mediation Board has issued representation certificates to labor organizations of the following airlines, for purposes of the Railway Labor Act:

1. Authorizing the Transport Workers Union of America, CIO, to represent airline mechanics (including radio mechanics), ground service, plant maintenance and fleet service personnel of American Airlines, on the basis of 1,811 votes from a total of 3,374 eligible voters.
2. Authorizing the Air Line Mechanics department, UAW-CIO to represent cargo, commissary and stockroom employees of Inland Air Lines, on the basis of 15 votes out of 25 eligible voters.
3. Authorizing the International Association of Machinists to represent the (a) stores and stockroom employees and (b) unskilled employees of Northwest Airlines, on a basis of 109 votes out of 137 eligible.
4. Authorizing the Brotherhood of Rail-



Identification Sign—Brilliant red enameled letters guide departing passengers to United Air Lines planes at busy airports. The letters are quickly interchangeable and there is a space for the storage of sign parts, at the base of the frame.

way and Steamship Clerks, Freight Handlers, Express and Station Employes, to represent transportation agents, senior transportation agents in charge and senior control agents of Northwest Airlines, on a basis of 361 votes out of 545 eligible.

5. Re-certifying the Air Line Mechanics Department, UAW-CIO, to represent cargo, commissary and stockroom employes of Western Air Lines, on a basis of 94 votes out of 185 eligible.

All American Engages Legal Representatives

Robert M Love, president of All American Aviation, announced that effective Sept. 1 the law firm of Pruitt, Hale and Courson would handle all legal work for the carrier, with Hamilton O. Hale appearing for AAA in CAB matters and acting as general counsel for the corporation.

Love also announced that Charles A. Rheinstrom, former vice president-sales of American Airlines, has been retained as consultant on passenger traffic, sales, advertising and public relations. Rheinstrom will assume his consultant duties with AAA Sept. 1.

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Airline Commentary

By ERIC BRAMLEY

President Truman has signed the 5c air mail bill into law, and starting Oct. 1 you'll be able to send your letter by air for a nickel . . . This is a big step in the direction of sending all long-haul first-class mail by air, and it's a step that means much to the airlines . . . Of course we had our spies at the signing, which took place in the President's office . . . They tell us that the president used 14 pens to sign the bill . . . He made a letter with one pen, then switched to another, etc. . . . He's said to be so good at it that the signature looks as though it had been written with one pen . . . When the President was all finished, he opened his desk drawer, took out a cloth, wiped the points of all the pens, and then gave them to those present as souvenirs . . . That is really some service . . . Eleven people attended the signing . . . All got pens and three were saved for officials unable to attend . . .

We think that Pennsylvania-Central Airlines has done a remarkably effective job of changing its name, first to PCA and now to Capital Airlines . . . It isn't exactly Capital Airlines yet—it's Capital Airlines-PCA . . . Changing the name of an airline the size of PCA isn't an easy job—you've got to change the paint jobs on everything (including airplanes), alter letterheads, phone directory listings, etc. . . . Instead of throwing everyone into a spin by changing suddenly, PCA elected to do it gradually, hence the Capital Airlines-PCA . . . Public address announcements are now made that way, and telephones are answered the same way . . . We're told that it may be only two or three months before the changeover is completed . . . A great deal of the credit for the smooth change goes to Ray Bell, PCA's (pardon us, we mean Capital Airlines-PCA's) director of advertising and public relations . . . He's handled the program and has spread the word far and wide . . . (The slogan, "The Capital Way to Get Places," isn't bad, either, Ray) . . .

TWA inadvertently created a new type of job recently—"flying janitors" . . . The company was in sad need of janitors in its Chicago offices, so it wrote up an ad to appear in Chicago papers, saying, "Janitors wanted on all shifts" . . . When it came out in one paper, however, it said, "Janitors wanted on all ships" . . . TWA reports that it had a flood of applications for these flying janitor jobs, but when the mistake was explained, the applicants all vanished . . . It seems that it hasn't quite come to the place yet where a man with a broom and a dustpan is needed on airplanes . . . P. S.: TWA is still looking for janitors in Chicago . . . On all shifts, that is . . .

Another TWA item: it seems that the company has a "Celestial Crew"—St. Peters, Lord and Amen . . . These gentlemen are Chester St. Peters, navigator, and First Officers Alva Lord and Elvin Amen . . . The publicity department is said to be tearing its hair because these gents weren't used when TWA flew the Cardinals to Rome . . .

A few issues ago we quoted a reader's complaint about the limousine driver who took him to Washington National Airport (a 75c ride), never offered to give him change from a dollar, but kept the two-bits, said "thanks" and walked away . . . We have now received a letter—a somewhat indignant letter—from Waldo E. Nichols, general manager of Airport Transport Inc., the company that operates the limousines . . . "I agree with you and the writer of the letter that this is an evil," says Nichols. "The established fare for that trip is 75c and it is not the policy of the company that anyone should be requested to pay more. We know that there are instances when an individual driver will take advantage of a situation to overcharge. This is always without knowledge of the management and neither does the overcharge find its way into the gross receipts of the company. We are confident that the type and caliber of the greater majority of our drivers is such that they will not and do not stoop to this type of petty dishonesty . . . Unfortunately, in an organization of this size, there will be an occasional employee whose selfish interests permit him to jeopardize the position of his fellow employees by such actions as you have commented upon. Neither the company nor the organization of the drivers condone this type individual when his actions become known. This you must certainly know. Therefore, I consider it quite unfair on your part to highlight a specific and isolated incident of this character and thus condemn an entire group of men without furnishing more specific information about the offending individual in order that he may be eliminated from among that group of men. Both the company and the drivers are sincere in their efforts to conduct a legitimate and efficient ground transportation at the Washington National Airport. . . . This is a good answer, and we will be glad to try to obtain the date and time of the incident . . . However, we have no intention of ceasing to criticize any "isolated incident" involving Airport Transport or any other outfit, because an accumulation of such incidents makes for bad service . . . Where possible, of course, it is desirable to be specific, but sometimes the publication of a general story serves the purpose . . . We'd still like to know why fares can't be collected at the start of a limousine trip instead of at the end . . . This is done in some cities and we venture to say that there's no involuntary "tipping" involved . . .

We attended the sixth birthday celebration of All American Aviation last month and want to extend to them our heartiest congratulations . . . They've been pioneers and deserve a lot of credit . . . Bob Love, AAA's personable president, says that since starting operations All American has made 387,000 air pickups and has flown 5,221,225 miles . . . This, we think, is quite a record . . .

No Wonder Uncle Sam Is Worried!

The policy of the Civil Aeronautics Board denies American steamship companies the right to supplement their sea routes with SCHEDULED plane service—preventing natural expansion of American Merchant Marine—while allowing foreign shipping interests to fly planes to our shores.

THIS fast-moving world demands forward-looking decisions. Yet, the Civil Aeronautics Board has refused applications of American steamship companies for overseas air routes—although these have been sought without exclusive rights or privileges and would involve no expense to American taxpayers.

What is Your Stake?

You know the vital contributions of the American Merchant Marine in war and in peace. Our nation's world trade was developed by shipping companies. And victory was won through America's unequalled coordination of our sea and air arms. At all times, it is imperative that America have passenger liners convertible into troop-ships.

Today, however, realizing that many passengers will fly instead of traveling by ship, steamship companies hesitate to build fast passenger-carrying vessels. If steamship lines could have complementary air service, passenger revenues could be maintained and ship tonnage expanded.

Foreign Governments Are Awake to the Danger

Already, airlines controlled by foreign steamship companies have applied to the CAB for landing privileges in this country. Such permission has been granted to Swedish, Norwegian, and Dutch companies.



Your Benefits from Coordinated Sea-Air Service

You could purchase a single ticket—going by sea and returning by air or vice versa.

You would use the steamship companies' knowledge of trade conditions and tourist attractions in foreign countries.

You would benefit from our lower costs through use of the same personnel for both sea and air travel—and through attractive sea-air combination tours.

Above all, you would guarantee yourself a strong, well-rounded American Merchant Marine, while strengthening America's air transport industry.

The Waterman Record of Service

For 27 years, Waterman ships have extended American trade to all parts of the world. For over 20 years, we have given service to passengers, as well as to exporters and importers, between the mainland and Puerto Rico.

As long ago as 1939, realizing the need for air service to Puerto Rico, we acquired a plane, made survey flights, and applied for certificate for the route.

During the war, in addition to building and operating ships for the Government, we provided training for military pilots.

Since 1945, Waterman has operated the first intrastate air service between major cities in Alabama.

During July, we began NON-SCHEDULED air cruises from New Orleans and New York to Puerto Rico, West Indies, Latin America—flying the Douglas Skymaster, manned and serviced by skilled personnel.

Waterman pilots are fully certified by Civil Aeronautics Administration.

Whenever CAB permission is granted, Waterman will fly planes on regular schedule. At present, we can offer only non-scheduled flights. Hence we provide Waterman air cruises at 10% lower cost than scheduled services.

Don't You Believe that This Is Your Fight Too?

We make this appeal direct to you, believing that you will further the cause of the American Merchant Marine in its desire to have "ships grow wings" for the good of our nation.



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For illustrated folder and information on how you can fly via Waterman, call your travel agent or contact your nearest Waterman Steamship Office—New York, New Orleans, St. Louis, Chicago, Philadelphia, Mobile, Birmingham, Savannah, Boston, Buffalo, Pittsburgh, San Francisco, Norfolk, Gulfport, Miss., Memphis, Baltimore, Atlanta, Panama City, Tampa, San Juan, P. R.

Airline Personnel

Traffic & Sales

Robert Jarrett, Jr., recently discharged from NATS, is to serve as superintendent of traffic and sales for the airlines division of Wiggins Airways. Prior to his service with NATS, he was employed by American Airlines.

James H. Hammond, former traffic manager for Delta Air Lines at Charleston, S. C., has been promoted to city traffic manager. He had previously served with Delta at Atlanta and Knoxville.



Wilson

McLaughlin

Halberg

Richard W. Roney has been named senior international traffic representative for Transcontinental and Western Air. Roney joined TWA in 1940 and served with the Atlantic wing of NATS during the war.

Henry B. McNaughton has received an appointment as district sales manager in New York for Northeast Airlines. He is a 15 year veteran in air transportation and was formerly a traffic representative for TWA.

Stan O. Halberg, assistant district traffic and sales manager for United Air Lines at San Francisco, has been granted a leave of absence, to act as traffic manager for LAMSA, United's Mexican subsidiary. During his stay in Mexico City, Halberg is replaced by **W. W. Wehner**, formerly of the UAL office at Fresno.

William M. Barnes, Jr., has been named district traffic representative for PCA at Norfolk, Va. He

was formerly supervisor of the Norfolk ticket office and was previously associated with the travel department of the Tidewater Automobile Association.

Janie McMillan and **Marcella White**, United Air Lines stewardesses have been named to chief stewardess positions with Far Eastern Transport Inc. Their headquarters will be at Manila.

Michael Cole, formerly of PCA has joined Southwest Airways as general traffic manager. **Perry H. Taft**, formerly with TWA, has been named director of public relations for the same operator.

Karolyn Dixon has been promoted to chief hostess of Delta Air Lines. Her assistant will be **Barbara Ball**, recently discharged from the Army Nurse Corps.

Myles J. McLaughlin is the new passenger service supervisor at Pan American Airways LaGuardia Field office. His previous assignment was with the PAA Atlantic division at Dakar.

Milton L. Patterson, former passenger traffic superintendent of Pan American Airways, has been named passenger traffic manager for the Latin-American division. He will continue to make his headquarters at Miami.

Henry O'Neill, former reservations manager for American Airlines at New York, is now district manager of ticket offices and reservations in Washington. He succeeds **William F. Prigge** who has been appointed assistant to **Charles R. Speers, Jr.**, v. p., in charge of the company's eastern region.

John B. Leyboldt has assumed duties as flight service manager for the Latin American division of Pan American Airways. In his new capacity, he will train both stewards and stewardesses at the Miami headquarters.

T. T. Oster, former district traffic manager for Delta Air Lines at Dallas is now agency and interline traffic manager. **J. J. Medaries**, formerly assistant to the v. p.-traffic has been made passenger traffic manager. **John Delafield** now serves as passenger relations manager.

Bill Ross, Chicago newspaper and magazine writer, has joined the Pennsylvania-Central Airlines public relations staff. He will be based at Washington.

Albert Lebron is now serving as district passenger manager for Eastern Air Lines at San Juan, Puerto Rico. He formerly served in a similar capacity for 14 years with Pan American Airways.

Robert Kinzel will be in charge of express sales for Pan American Airways. He was recently appointed as assistant to sales manager **Arthur C. Doyle**.

Administrative

Howard Mitchell, former research supervisor for Pan American, has been named assistant industrial



Reinhold

Dixon

Enge

relations manager of the Atlantic division. He has been with PAA since 1942.

Arthur Ayres is now southwestern regional manager for Pan American Airways, with territory covering southern California and the southwest states. He previously served as Los Angeles representative of the company.

Howard M. Wilson has assumed duties as manager of operations, for American Airlines at Parkersburg, W. Va. He was formerly flight dispatcher at Ft. Worth.

Paul E. Reinhold, president of Foremost Dairies, has been elected to the board of directors of Eastern Air Lines. He is a pioneer in the development of modern ice cream machinery and paper milk bottling.

O. C. Enge, Washington district manager for traffic and sales for United Air Lines has assumed his new duties as assistant vice president. He is succeeded in Washington by **Karl P. Hughes**, assistant traffic manager.



Roney

O'Neill

Hammond

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BARTLETT HAYWARD DIVISION

United To Inaugurate U. S.-Hawaii Service In December With DC-4s

United Air Lines expects to start flying between San Francisco and Honolulu Dec. 1. Initial schedules will be on the basis of two round trips a day with DC-4s. DC-6s will go into operation in 1947, and will be replaced by Boeing Stratocruisers late the same year.

• Pennsylvania Central flight service between Norfolk and Knoxville, beginning Sept. 5, will provide departures from Norfolk at 7 a.m., 1:15 and 8 p.m. Return flights will depart Knoxville at 7 p.m., 12 noon and 8 a.m.

• Eastern Air Lines will inaugurate scheduled passenger, mail and express service into Providence, R. I., Sept. 3. Service calls for use of DC3s.

• Western Air Lines, with four DC-4s, will inaugurate 12 round trips daily between Los Angeles and San Francisco, beginning Sept. 1. Three of these daily trips are later scheduled to stop at Oakland, which recently was certified for WAL by the CAB. Sept. 1, is also the opening date for four-engine shuttle service between Los Angeles and Las Vegas. The shuttle plane is scheduled to leave Los Angeles at 9:40 p.m. and return at midnight. Current DC-3 service between Los Angeles and San Diego is to be augmented by three daily DC-4 round trip flights, in the new schedule.

• Royal Netherlands Indies Airways plans to inaugurate trans-Pacific service between California and Batavia, about Sept. 15, it has been announced at Los Angeles by Marten E. A. L. Jong, general manager. The service is to open with one flight a week via Honolulu, Kwajalein and Biak.

• Colonial Airlines has established daily passenger, mail and express service to Plattsburgh, Saranac-Lake Placid, N. Y., and Rutland, Vt. Plattsburgh, an intermediate stop between New York and Montreal will have three daily schedules except Sunday.



Portable Air Ticket Counter—

Martin Underwood is the designer of this portable ticket office, to be set up at conventions, resort areas or wherever temporary service is required. Three United employees are shown demonstrating the facility which fits into a carrying case and includes cashier's cage, manifest stamp, time tables and other items required for ticketing air travelers.

American Executives Inspect Overseas Bases

C. R. Smith, chairman of the board of American Airlines and president of American Overseas Airlines, and Harold R. Harris, v.p., and general manager of AOA, departed Aug. 24 from La Guardia Field aboard the Flagship "Scandinavian" to London and thence will visit all Continental stations on the AOA system on a general inspection tour.

Harris will attend the exhibit of the Society of British Aircraft Constructors at Handley-Page Airdrome, Hertfordshire, England, and will represent the Society of Automotive Engineers. He also will represent American Airlines at the Paris meeting of the International Technical Congress Sept. 16-21 in conjunction with the International Air Transport Association and will present a paper.

Rural Air Mail Service Predicted By Ramspeck

Rural mail delivery by air has been predicted by Robert Ramspeck, vice president of the Air Transport Association, in an address before the National Association of Rural Letter Carriers. The speaker also expressed confidence that next year will see the passage of legislation to provide a system of air parcel post.

Concerning the five cent air mail service which goes into effect on October 1, Ramspeck pointed out that, at the new rate, a pound of air mail will yield a greater profit to the postal system than a pound of first class mail, transported by surface, at three cent postage rates. The new air mail route, he declared, will increase postal revenue and strengthen the entire service.

SUMMARY OF U. S. DOMESTIC AIR TRANSPORT OPERATIONS FOR May, 1946

Compiled by American Aviation Publications from Official C.A.B. Data.

REVENUES
&
EXPENSES

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUNDS & INDIRECT EXPENSES	OPERATING REV. PER MILE	NET INCOME BEFORE TAXES	NET PROFIT LOSS	TOTAL ASSETS
All American	\$ 69,523	\$ 4,269,000	62,092	163	\$ 72,924	37,045	35,879	45,36	\$ 7,56	-79,227	-47,536	\$ 1,775,377
American	5,544,761	4,269,000	276,046	157,303	132,575	5,172,156	1,976,039	3,195,156	100,36	212,102	184,375	76,623,024
Brussels	620,182	153,237	38,335	8,365	8,322	838,194	333,326	504,768	88,18	-7,203	-4,322	10,052,782
Caribbean	32,307	26,769	1,325	776	182	44,857	17,314	27,953	111,56	155,44	-12,301	329,447
O & S	562,391	941,216	80,211	15,026	—	585,640	211,062	374,578	88,36	-4,670	-2,900	5,717,303
Colonial	243,220	221,344	16,125	1,200	—	343,990	144,106	199,483	82,34	116,34	-93,190	3,392,497
Continental	375,365	317,559	50,995	2,227	1,347	376,599	160,321	216,276	81,34	81,56	261	-297
Delta	855,045	624,913	63,097	14,217	—	849,375	365,268	484,087	95,16	90,29	44,260	22,775
Eastern	3,200,112	2,913,565	133,836	120,011	4,580	2,945,648	1,094,376	1,951,271	96,06	75,64	608,018	406,018
Hawaiian	214,655	184,940	1,047	9,570	18,712	173,70	10,012	103,058	162,14	186,34	46,134	33,607,792
Inland	147,522	92,879	51,681	500	—	154,272	13,307	80,964	88,94	88,84	-6,940	674,538
MCA	439,582	347,336	81,764	6,746	—	367,620	150,389	207,230	95,84	80,16	69,552	34,453
National	900,028	626,504	37,364	12,599	—	677,559	138,162	359,396	105,29	82,29	217,367	143,125
Northeast	371,885	329,293	35,390	5,081	—	403,952	172,777	231,174	125,64	136,39	-35,425	6,039,218
Northwest	1,297,057	1,062,997	95,186	31,570	—	1,518,513	562,059	925,414	104,84	86,84	74,260	35,675,656
PAA	1,695,873	1,369,585	35,058	45,088	—	1,759,326	632,491	1,066,838	108,36	115,16	-106,105	40,843
Pioneer (Alaska)	50,680	20,278	19,493	236	—	55,775	28,200	31,945	50,40	69,84	-18,534	29,018,346
TWA	8,267,784	1,709,825	297,262	126,270	55,698	8,096,481	1,624,078	2,472,363	107,76	103,44	162,440	236,736
United	5,065,816	4,393,631	376,417	150,624	89,750	4,171,732	2,446,953	152,123	108,14	85,76	1,045,871	639,871
Western	771,191	714,292	26,940	10,791	2,643	859,067	416,107	482,959	113,64	132,44	-135,979	-135,979
TOTAL	27,366,143	24,079,702	1,711,516	718,963	309,669	25,106,350	10,931,552	12,604,103	97,56	89,78	2,070,557	1,336,967
<i>Revenue and Expense Statistics for Northeast</i>												
Mar. 1946	320,534	259,420	48,285	2,703	—	326,326	140,510	185,757	113,14	118,54	73,145	2,803,049
April	314,388	264,138	46,762	2,616	—	334,182	140,279	187,902	116,39	125,89	-21,810	3,359,722

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Board Seeks Policy to Cover Freight Forwarder

Consider Regulations For Indirect Air Carriers

By DANIEL S. WENTZ, II

ONE of the concomitants of the vast expansion which the freight and cargo phases of air transportation have undergone since the close of the war has been the rise of the freight forwarder, an intermediary agent who, in the eyes of the law, is an "indirect air carrier" but who does not operate aircraft. Because such forwarders will come to play an increasingly influential role in the development of the air cargo business, their proper regulation is a matter of real concern for the Civil Aeronautics Board, which in the past two weeks has taken the first steps in a formal economic proceeding out of which a permanent policy on freight forwarders will almost certainly evolve.

The Freight Forwarder Case, Docket 681 et al., is not the first look CAB has taken into the forwarder question, but it is the most comprehensive proceeding ever launched in this field. In 1941 the Board handed down an opinion on an application of the Railway Express Agency, Inc., for a grandfather certificate covering its air express business in which it acted as a forwarder over the lines of air carriers. CAB then found that Railway Express was an air carrier as defined by the Civil Aeronautics Act, but that Congress had not intended that the grandfather provisions of the Act should cover the certification of forwarders who did not actually operate aircraft. Instead the Board issued REA an exemption order under a specific provision in Section 1 of the Act allowing CAB to relieve "air carriers who are not directly engaged in the operation of aircraft" from the usual certificate requirements. Since March 13, 1941, REA has been operating under this exemption.

A year later, early in 1942, the Board opened an investigation of the activities of the Universal Air Freight Corporation. In its opinion dated September 15, 1942, CAB stated that "one who, as a common carrier, forwards by air is an air carrier within the meaning of the Civil Aeronautics Act." It also denied Universal's application for an exemption, and ordered it to cease and desist from violating the Act by operating without a certificate. The whole question of freight forwarders then lay dormant throughout the war.

During the past year, however, the mushroom growth of non-scheduled aviation and the unprecedented expansion of the certificated airlines' operations has provided a new basis for freight forwarders, and numerous companies have sprung into existence, some actually operating as forwarders, others only proposing to do so. The Board's announcement last May that the so-called "non-scheduled exemption order" would not protect or authorize any forwarding operations undoubtedly spurred many of these new companies to apply for certificates, and their applications, plus those of old-line express companies who wish to enter the

air freight field will be tested in CAB's current freight forwarder case.

The prehearing conference held last fortnight before Examiner J. Earl Cox, gave ample proof that the case bids fair to become one of the most complex and difficult proceedings ever to arise under the Act, largely because it must go forward without any substantial previous indication of what CAB's policy may be. The conference indicated clearly that neither the applicants, the Board's staff, nor the several airlines who wish to intervene have any clear concept of what policy CAB may eventually decide to adopt, and that therefore future steps in the case will be tantamount to groping in a darkened tunnel.

The applicants at the conference appeared to fall roughly into two groups—old and well-established firms, many of whom operate as freight forwarders under certificates issued by the Interstate Commerce Commission, and new companies formed primarily to function as forwarders over airline systems of all classes. The established companies, of course, are in many cases closely linked with surface carriers by motor or rail, and their outlook as reflected by attorneys representing them before CAB seems to be conservative rather than experimental. They view the growing air transport field as a logical area into which to extend their activities.

By contrast, the more recently formed companies who have applied for forwarders' certificates exhibit a more frankly experimental attitude and a feeling that freight forwarding in the air transport field should be handled by newer concerns, preferably those free of any involvement with surface carriers.

Further evidence of these divergent attitudes was seen in the request of counsel for nearly all the established companies that CAB delay its hearing in the forwarder case because a pending ICC investigation of forwarders via surface carrier had their economic and statistical staffs tied up at present. The newer companies said they would be ready for a hearing within two or three months and urged rapid progress. One attorney, urging a hearing as soon as possible, alleged that any delay could only mean further entrenchment of the Railway Express Agency as the only forwarder now authorized to use the airlines' facilities.

The certificated airlines generally endorsed the views of American Airlines' attorney Howard C. Westwood, who expressed a more or less "wait and see" attitude on the freight forwarder question. Several airlines' counsel expressed interest in the extent to which surface carrier interests should be allowed to penetrate the air transport field through the medium of forwarding companies.

One of the most important contributions to the whole proceeding was made by Public Counsel Philip Schleit, who introduced a motion requesting the Board to institute an investigation of the whole forwarder question and asked that this investigation be consolidated with the application case.

Pan American Gets Two Routes in South Atlantic to Africa

The basic structure of U. S. flag international air services was completed by the Civil Aeronautics Board last fortnight in a decision certifying Pan American Airways to extend its far-flung system into South Africa over two new routes, one via the Azores, the other via Natal, Brazil, and Ascension Island. The needs of this country's foreign commerce were cited as the foundation for what will probably prove a costly air service, and considerations of national defense prompted the Board to provide the alternative routing via Ascension.

PAA received its new authorization in the Board's South Atlantic Case decision, (Docket 1171 et al.), which simultaneously denied route applications of American Overseas Airlines, Seas Shipping Company, American South African Line, Inc., Pennsylvania-Central Airlines, and U. N. Airships, Inc. PAA was selected, said the Board, because its prior operations over parts of both routes fitted it to provide the service at the lowest probable cost. The company has in existence several bases which will prove useful in opening the new service.

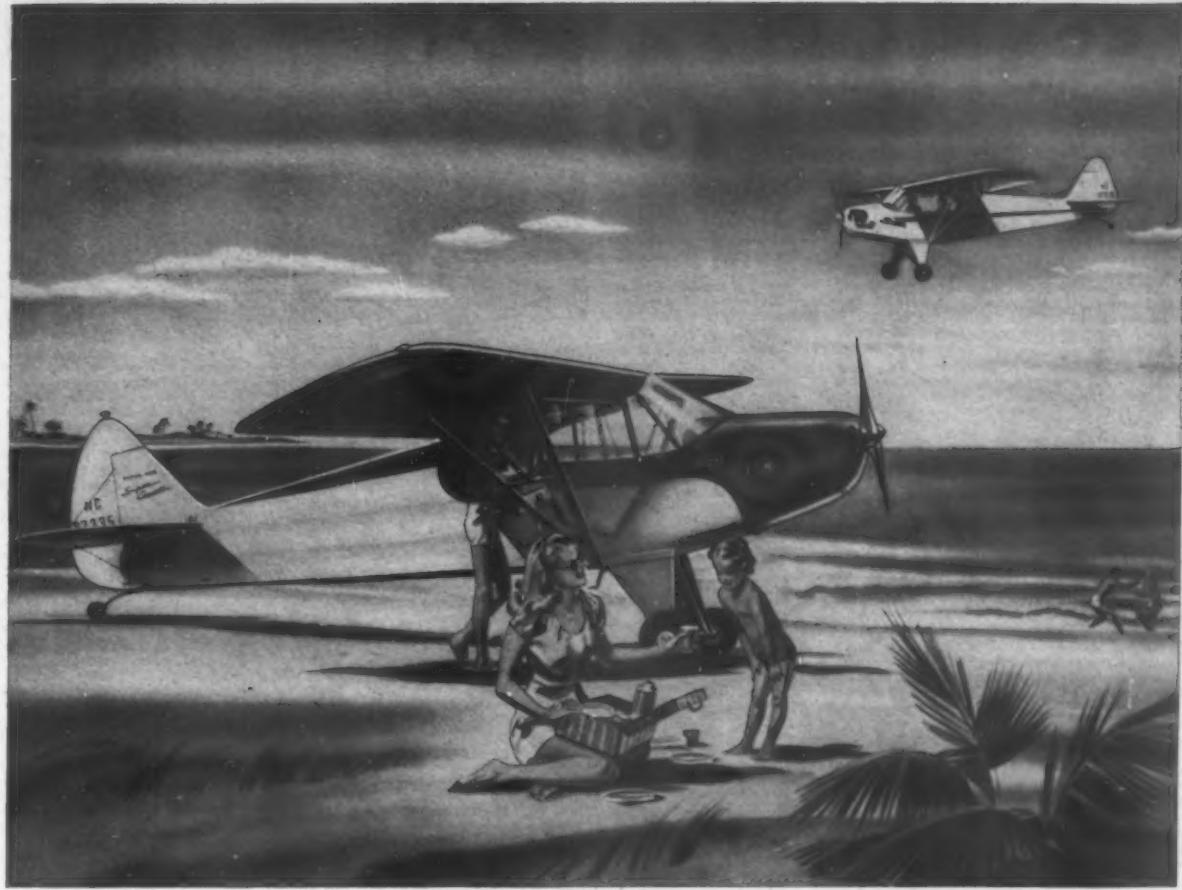
Will Need Subsidy

The Azores route as certificated extends from the terminal point New York via the Azores; Dakar, French West Africa; Monrovia, Liberia; Accra, Gold Coast; Leopoldville, Belgian Congo, and the co-terminal points Capetown and Johannesburg, Union of South Africa. The certificate is valid for seven years. By amending PAA's existing Latin American certificates, the Board also authorized an extension from Natal, Brazil, to Johannesburg and Capetown via Ascension Island and an unnamed point in West Africa, also valid for seven years.

Admitting that the services would probably require heavy mail pay support, the Board estimated that the Azores route would probably develop 4000 passengers during the first normal year of operations. It guessed that mail pay possibly exceeding \$1,000,000 might be needed to make up operating deficits. The Ascension Island route, said CAB, is even more lean, and will probably require a subsidy of \$1,500,000 annually to maintain a weekly schedule. Its certification, the opinion disclosed, was based on substantial considerations of national defense advanced by high levels of the War and Navy Departments. The Ascension route could operate as an alternative routing should the Azores become temporarily unavailable as an intermediate stop, it was pointed out.

The Board stated that the mail pay costs must be balanced against the value of a direct air service to South Africa in relation to this nation's commerce with the Union, which in pre-war years amounted to \$150,000,000 in exports and \$96,000,000 in imports. A trade volume nearly equal to the U. S.-South Africa figures was enjoyed by the Axis nations before the War, the Board said.

Applications proposing links from South America to Europe were rejected by the Board as not required at the present time, although this route had been originally suggested by CAB as desirable for U. S. flag carrier operations.



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**PIPER AIRCRAFT CORPORATION
LOCK HAVEN, PENNA., U.S.A.
In Canada: Cub Aircraft Ltd., Hamilton**

CAB Proceedings

(A Summary of Applications Filed, Orders Issued, and Future Actions of the Civil Aeronautics Board.)

Applications:

Air Cargo Coordinators (Frank V. Gondola and William E. Geiselman, Jr., partners), Harrington Hangar, Cleveland Municipal Airport, Cleveland 32, Ohio, for a certificate authorizing the applicant to operate as a freight and passenger forwarder for non-scheduled air carriers. (Docket 2410.)

Airways Freight Forwarding, (Jack S. Nelson, d.b.a.) Merchandise Mart Building, 2201 Grand Avenue, Kansas City, Mo., for a permanent certificate authorizing the applicant to engage in indirect air transportation as a freight forwarder. (Docket 2424.)

Chamber of Commerce of Pittsburgh, Pa., Pittsburgh 19, Pa., for amendment to Transcontinental & Western Air's trans-Atlantic certificate to designate Pittsburgh as a co-terminal point. (Docket 2435.)

Chicago and Southern Air Lines, Inc., for an amendment to its certificate for Route 53 to include Monroe and Alexandria, La., as intermediate points. (Docket 2414.)

Colorado Aviation Company, 729 U. S. National Bank Building, Denver, Colo., for a certificate authorizing non-scheduled passenger and property service between points and places in Arizona, Arkansas, California, Colorado, Idaho, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington and Wyoming. (Docket 2409.)

Dean Reiter, Sterling, Colorado, for a certificate authorizing non-scheduled transportation of passengers and property in call and demand service between points and places in Colorado, Nebraska, Wyoming, Kansas, Oklahoma, New Mexico and Utah. (Docket 2340.)

Domestic Air Express, 1025 Mateo Street, Los Angeles, Calif., for a certificate authorizing the applicant to function as a freight and express forwarder by air between all the states of the United States. (Docket 2421.)

Glen-Air Pickup Service (Richard and Frank Luso, partners and owners) Fultonville, N. Y., for a permanent certificate authorizing scheduled mail and express pickup service over a 585-mile circle route out of Albany, N. Y. (Docket 2408.)

Globalair, Inc., 401 Simms Building, Dayton, Ohio, for a permanent or temporary certificate authorizing scheduled mail, passenger and property service over 1460 miles of routes between Cincinnati, Ohio, and Washington, D. C., via various intermediate points. (Docket 2427.)

Mercury Airfreight Corporation, 111 West Seventh Street, Los Angeles, Calif., for a certificate authorizing the applicant to operate as a freight forwarder of property in interstate air transportation in the continental United States over the existing and future lines of scheduled air carriers. (Docket 2419.)

Mercury Airfreight Corporation, 111 West Seventh Street, Los Angeles, Calif., for a certificate authorizing the applicant to operate as a freight forwarder of property in inter-state air transportation in the continental United States over existing and future lines of non-scheduled air carriers. (Docket 2420.)

Mercury Airlines, Inc., 1975-1995 LeVeque Lincoln Tower Columbus 15, Ohio, for a certificate authorizing scheduled mail, passenger and expense service over a 168-mile route between Toronto-Hamilton, Canada, and Havana, Cuba, via Detroit, Cleveland, Akron, Canton, Columbus, Cincinnati, Lexington, Knoxville, Atlanta, Jacksonville and Miami Beach. (Docket 2425.)

Mercury Airlines, Inc., 1975-1995 LeVeque Lincoln Tower Columbus 15, Ohio, for a certificate authorizing scheduled mail, passenger and property service over a 1337-mile route between Detroit and Miami Beach, Fla.; over a 734-mile route between Pittsburgh and St. Louis; and over a 548-mile route between Charlestown, W. Va., and Atlanta, all via various intermediate points. (Docket 2426.)

National Air Cargo Corporation, 940 South Los Angeles Street, Los Angeles 15, Calif., for a permanent or temporary certificate authorizing scheduled property and mail service between Los Angeles and New York; Los Angeles and San Francisco (non-stop); Los Angeles and Oakland (non-stop); San Francisco and Newark; Los Angeles and New York; Los Angeles and Seattle; and between Washington and Boston, all via various intermediate points with the exception of the non-stops noted. (Docket 2417.)

National Airlines, Inc., for an amendment of its certificate for Route 39 to include Panama City,

Fla., as an intermediate point between Pensacola and Tampa. (Docket 2436.)

Nation-Wide Air Freight, Inc., Suite 301, 39 West Adams Street, Chicago, Ill., for a permanent and/or temporary certificate authorizing the applicant to operate as a freight forwarder over both scheduled and non-scheduled air carriers. (Docket 2415.)

Northern Airlines, Inc., 1331 3rd Avenue, Seattle, Washington, for a certificate authorizing scheduled mail, passenger and property service over a 1867-mile route between Seattle and Fairbanks, Alaska, via Annette Island/Juniper, Cordova and Anchorage, Alaska. (Docket 2428.)

Ohio Intrastate Airlines (Robert C. Jones, Frank D. LaZelle, and Donavan E. Pitts), 1533 East Boulevard, Cleveland 6, Ohio, for a permanent certificate authorizing scheduled mail, passenger and property service on two circle routes totalling 1056 miles out of Cleveland. (Docket 2406.)

Pacific National Airlines, Inc., 177 Post Street, San Francisco, Calif., for a permanent, temporary, limited or restricted certificate authorizing non-scheduled mail, passenger, and property service between the general areas of San Francisco, Los Angeles and Seattle and the eastern areas of Chicago, Philadelphia, New York and Boston. (Docket 2407.)

Pacific National Airline, Inc., 177 Post Street, San Francisco, Calif., for a permanent, temporary, limited or restricted certificate authorizing scheduled mail, passenger and property service over a 702-mile route between San Francisco and Seattle via various intermediate points. (Docket 2406.)

Pan American Airways, for amendment to its Latin American certificate to include Montego Bay, Jamaica, as an intermediate point between intermediate points in Cuba and Kingston, Jamaica. (Docket 2436.)

Riddle Aviation Company, 137 Coral Way, Coral Cables, Fla., for a permanent or temporary certificate authorizing scheduled mail and property service between New York and Miami; Rochester, N. Y., and Miami; Cleveland and Miami; Detroit and Miami; Chicago and Miami; Minneapolis and Miami; and between Los Angeles and Miami, all via various intermediate points. (Docket 2418.)

Skyfreight Airlines, Inc., 1500 Gulf States Building, Dallas 1, Texas, for a permanent and/or temporary certificate authorizing scheduled property service over a 3142-mile route between Boston and Los Angeles and over a 2979-mile route between Boston and San Francisco, both via various intermediate points. (Docket 2422.)

Skyways Freight Forwarding Corp., 152 West 42nd Street, New York 18, N. Y., for a permanent certificate authorizing the applicant to operate as an air freight forwarder over both scheduled and non-scheduled domestic air carriers. (Docket 2416.)

Southwest Airways Company, P. O. Box 270, Beverly Hills, Calif., for a permanent or temporary certificate authorizing scheduled mail and property service by helicopter over 122-miles of routes between the San Francisco Municipal Airport and San Jose, San Rafael, and Vallejo, Calif. (Docket 2437.)

Twentieth Century Air Lines, Inc., P. O. Box 302, Charlotte, N. C., for a certificate authorizing scheduled mail, passenger and property service over two routes totalling 1295 miles between Charlotte, N. C., and Chicago via various intermediate points. (Docket 2432.)

Veterans' Air Express Company, 11 Commerce Street, Newark, N. J., for a permanent certificate authorizing mail and passenger service over routes between Newark and London; Newark and Helsinki, Finland; Newark and Moscow; Newark and Vienna; Newark and Ankara, Turkey; Newark and Cairo; Newark and San Francisco (around-the-world); New Orleans and Valparaiso, Chile; Miami and Valparaiso; and between Miami and Mexico City, all via various intermediate points. (Docket 2422.)

Veterans' Air Express Company, 11 Commerce Street, Newark, N. J., for a permanent certificate authorizing property service over routes between Newark and London; Newark and Helsinki; Newark and Moscow; Newark and Vienna; Newark and Cairo; Newark and San Francisco (around-the-world); New Orleans and Valparaiso; Miami and Valparaiso; and between Miami and Mexico City, all via various intermediate points. (Docket 2413.)

Western Air Freight Forwarders, Inc., 15 Brook Street, Jersey City, N. J., for a permanent or temporary certificate authorizing air transportation as a freight forwarder within the United States. (Docket 2433.)

Western Air Freight Forwarders, Inc., 15 Brook Street, Jersey City, N. J., for a permanent or temporary certificate authorizing air transportation as a freight forwarder between localities within the United States, its territories and possessions, and foreign countries. (Docket 2434.)

Calendar:

Sept. 4—Hearing in the Transcontinental & Western Air-Italian Agreement Case. (Docket 2337.) Examiner James S. Keith, Tentative.

Sept. 4—Brief due in the AAL-TWA-UAL Consolidated Route Consolidation Case. (Docket 214 et al.)

Sept. 4—Prehearing Conference on the route application of Colorado Airways, Durango, Colo., in Docket 107, Foyer, Commerce Department Auditorium. Examiner Joseph L. Fitzmaurice.

Sept. 9—Date for exchange of exhibits in the KLM-Royal Dutch Air Lines Amsterdam-New York-Curacao Foreign Air Carrier Permit Case. (Docket 2324.)

Sept. 9—Reargument of the Los Angeles-Honolulu portion of the Hawaiian Case. (Docket 85 et al.) 10 a. m., e. s. t., Room 504, Commerce Building.

Sept. 9—Date for exchange of exhibits in Pan American Airways' U. S. Domestic Routes Case. (Docket 1903.)

Sept. 11—Oral argument on the motion of American President Lines, Ltd., and other steamship companies requesting a review of CAB policy on surface carrier participation in air transport. Argument limited to question of whether motion should be granted. 10 a. m., e. s. t., Room 504, Commerce Building, Washington. (Docket 2411.)

Sept. 16—Reargument of the reopened portions of the Latin American Case. (Docket 525 et al.) 10 a. m., e. s. t., Room 504, Commerce Building.

Sept. 16—Deadline for exchange of exhibits in the Air Freight Case. (Docket 810 et al.)

Sept. 16—Rebuttal exhibits due in KLM Royal Dutch Air Lines foreign air carrier permit case. (Docket 2324.)

Sept. 16—Exchange of exhibits in the Detroit-Washington Service Case. (Docket 679 et al.) Postponed from Sept. 1.

Sept. 18—Hearing on applications proposing mail and property service by helicopter in the Los Angeles Metropolitan area. (Docket 896 et al.) 10 a. m., w. s. t., Room 229, Federal Building, Los Angeles, Calif. Examiner Ferdinand D. Moran. Postponed from Sept. 16.

Sept. 20—Hearing on the Transcontinental & Western Air International Mail Rate Case. (Docket 2375.) Recessed from Aug. 19 at TWA's request. 10 a. m., e. s. t., Room 5132, Commerce Building, Washington. Examiner Barron Fredricks.

Sept. 24—Hearing on application of KLM Royal Dutch Air Lines for Amsterdam-New York-Willemstad, Curacao, N. W. I., foreign air carrier permit. (Docket 2324.) Examiner Barron Fredricks.

Sept. 26—Rebuttal exhibits in the Air Freight Case due. (Docket 810 et al.)

Sept. 26—Exchange of initial exhibits on application of Continental Air Lines for permanent certification of its Hobbs, N. M.-San Antonio, Tex., route. (Docket 2087.)

Oct. 8—Rebuttal exhibits in the Detroit-Washington Service Case due. (Docket 679 et al.) Postponed from Sept. 15.

Oct. 14—Rebuttal exhibits in the Pan American Airways Domestic Routes Case due. (Docket 1803.)

Oct. 14—Hearing in the Air Freight Case. (Docket 810 et al.) Tentative. Examiners R. Vernon Redcliffe and William F. Cusick.

Orders:

4738—Denying an application of Ellis Air Transport for a temporary exemption order which would have permitted the operation of a passenger and property service on irregular trips or on a regular route between Ketchikan, Alaska, and Prince Rupert, British Columbia, Canada. (Docket 1015.)

4939—Consolidating applications of twenty-four companies proposing scheduled property, or property and mail service only, within the continental United States into the Air Freight Case. (Docket 810 et al.)

4940—Permitting American Airlines, Braniff Airways, Chicago and Southern, Eastern, Mid-Continent, Northwest, TWA, United, Western, the Baltimore Association of Commerce, the Baltimore City Aviation Commission, the City of Detroit, the City of Milwaukee, Bekein Van Lines Co., Lyon Van and Storage Co., the Institute of Air Transportation, Inc., the Pan Atlantic Steamship Corp., and the Department of Justice to intervene in the Air Freight Case. (Docket 810 et al.)

Are Advertising Men Necessary?



"WE'VE GOT MORE ORDERS than we can fill, and can't get raw materials. So why advertise?"

Every ad manager has heard that argument before. Now it's up again.

Too often when management wants to cut costs it seems to instinctively turn to advertising. It's an effortless way to retrench. You cancel a few schedules, save a few dollars and nothing appears to happen. At least not for a while.

When you turn off a faucet the water stops running. When you "turn off" advertising, nothing seems to happen, and some people labor under the fallacy that nothing actually does happen.

But the orders that keep your business alive come as a result of advertising and selling. Advertising and selling not only *create* orders, they *protect* them against direct and indirect competition. Just let somebody come along with a good substitute for your product, with quick delivery, and your back-log of orders won't last long.

Advertising is not a machine you can start and stop as production is needed. Advertising must be continuous. It is a long-range effort. It gathers momentum as it goes on and it is soon forgotten when it is stopped.

But management too often confuses advertising's job. It

makes one problem out of two. In a desperate effort to solve the difficulties arising from "short term" problems, such as strikes, material and personnel shortages, etc., it inadvertently forgets that the long range objective of any company is the creation and protection of orders. That is advertising's No. 1 job and the stuff that dividends are made of.

If you would like a couple of case histories of what happened to some companies that discontinued advertising because they were "oversold," or if you want copies of this ad to send to others in your organization, drop a note to ABP headquarters and we will send them to you.



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ABP'S BUSINESS IS TO BOOST YOUR BUSINESS

Maximum Duty Hours For Airline Pilots Recommended

Number of Landings A Factor In Considering Air Fatigue

AIRLINE pilots on both domestic and international routes should not be required to be on duty in the cockpit or on the flight deck for more than eight consecutive hours, nor should pilots be on duty aloft more than 12 hours on any one flight or series of flights, according to recommendations of Civil Aeronautics Board Examiner Merrill Armour in CAB's investigation into "maximum hours of duty for pilots as related to safety in air carrier operations."

If the recommendations are adopted, there will also be incorporated into the Civil Air Regulations for the first time limitations on "on-duty" time—the period from the time a pilot reports for duty until he is released from duty. Some observers have claimed that this is a better "yardstick" of a pilot's work than flying time. Armour suggested a maximum of 12 hours for most operations, with the CAA Administrator given the power to authorize 16 hours in unusual cases. The airlines have voluntarily limited on-duty time to 16 hours.

Adoption of the recommendations would mean that airlines desiring to fly non-stop transcontinental schedules would be required to carry two captains and a co-pilot, as long as those schedules required more than eight hours of flying. It would also mean carriage of two captains on international flights.

At present, under Part 61 of CAR (covering domestic flights), a two-man crew (pilot and co-pilot) cannot fly domestically for more than eight hours scheduled time. Under Part 41 (international) a two-man crew can fly 12 hours internationally if a third crew member—not necessarily a pilot—is aboard. Armour said that "a crew member such as a flight engineer, navigator and radio operator, can relieve a pilot of certain duties and increase the safety of the flight, but it is not established that such crew members would significantly extend the time a pilot might fly with safety."

In hearings on Apr. 30, the airlines, through the Air Transport Association, asked that the 12-hour rule be applied domestically, stating that safety considerations are the same in domestic and overseas flights and that there has been no evidence of chronic fatigue among international pilots. The Air Line Pilots Association took the opposite view, claiming that two-man crews should never fly more than eight hours, with overall time on duty of 12 hours. With larger and faster equipment, ALPA said, flying time of two-man crews should be limited to not more than seven hours in any 24 consecutive hours. It opposed the 12-hour international rule unless a second captain is aboard. Armour disagreed with the seven-hour contention.

He also expressed the belief that international pilots should be allowed to fly 100 hours monthly, and that they can do so without reducing safety. A similar increase could not be made on domestic routes because the 85-hour limit is set by law. Comments are to be filed by Sept. 20.

TWA Accepts Mail Rate on Atlantic Run

Jack Frye, Transcontinental & Western Air president, last fortnight informed the Civil Aeronautics Board, in a letter to its Chairman James M. Landis, that TWA would accept "reluctantly" the temporary international mail pay rate of 75 cents per ton mile set tentatively for TWA, American Overseas and Pan American Airways July 17. The latter two companies, however, have indicated that they will contest the 75 cent rate, and will file formal replies to the CAB show cause order by September 17.

Frye's letter of acceptance, although finally agreeing to the rate, stated that "TWA wishes to register a vigorous protest to the use of this mail rate on even a temporary basis" because it is "completely unrealistic" and will not provide a fair and reasonable compensation for TWA's international services.

He asserted that in setting the rate, CAB had failed to give full weight to such variables as rising costs of labor, equipment and materials, as well as the impact on airline economies of inflation and unsettled conditions both at home and overseas. Frye protested that the 75 cent figure gives TWA no allowance for recovering a portion of the costs incurred in inaugurating its trans-Atlantic service, although Pan American and American Overseas had in other CAB mail rate cases been given such allowances. Furthermore, said Frye, the proposed temporary rate set by CAB does not reflect the lowered passenger fares proposed by the International Air Transport Association's North Atlantic Traffic Conference.

However, because the rate is only "temporary," TWA has accepted it without formal protest "with the understanding that this action is without prejudice to TWA's legal and moral rights" to urge a substantially higher rate at a later time.

A brief hearing at which the company's formal acceptance of the temporary rate was to have been entered on the record was recessed to September 20 at the airline's request. CAB Examiner Barron Fredricks is in charge of the proceeding.

Would Use Helicopters—Southwest Airways Company, which expects to begin service over its 1130-mile west coast feeder route sometime in November, has applied to the Board for a certificate to permit helicopter operations carrying mail and express over three routes radiating from the San Francisco Municipal Airport. The company's application for similar service in the Los Angeles Metropolitan area will be heard in that city on September 18.

James G. Ray, Southwest's vice-president, states that the three proposed routes will be flown with Sikorsky S-51's or with Bell Model 47 helicopters.

C&S Asks Dismissal Of Steamship Lines' Route Application

Chicago & Southern Air Lines filed a motion with the Civil Aeronautics Board asking dismissal of Waterman Steamship Corporation's application for a temporary New Orleans-San Juan certificate, and asked the CAB to investigate Waterman's non-scheduled operations.

The first C&S action came prior to a prehearing conference of Waterman's move was "frivolous and capricious, being a deliberate attempt to secure by subterfuge another hearing on issues and facts already determined."

(Waterman's application for a permanent route certificate was rejected by the CAB in its Latin American decision.)

With respect to Waterman's non-scheduled operations, C&S asked the Board to issue a cease and desist order if it found that those activities were illegal. C&S based its petition on Waterman's flight schedules, numbers and departure dates derived from the steamship company's "air cruise" advertising.

Waterman asked that the proposed investigation be incorporated in the route application hearing, if the Board elected to pursue it.

The C&S-Waterman clash followed published statements by Waterman that it was prepared to give immediate service on the San Juan-New Orleans route, while C&S was not.

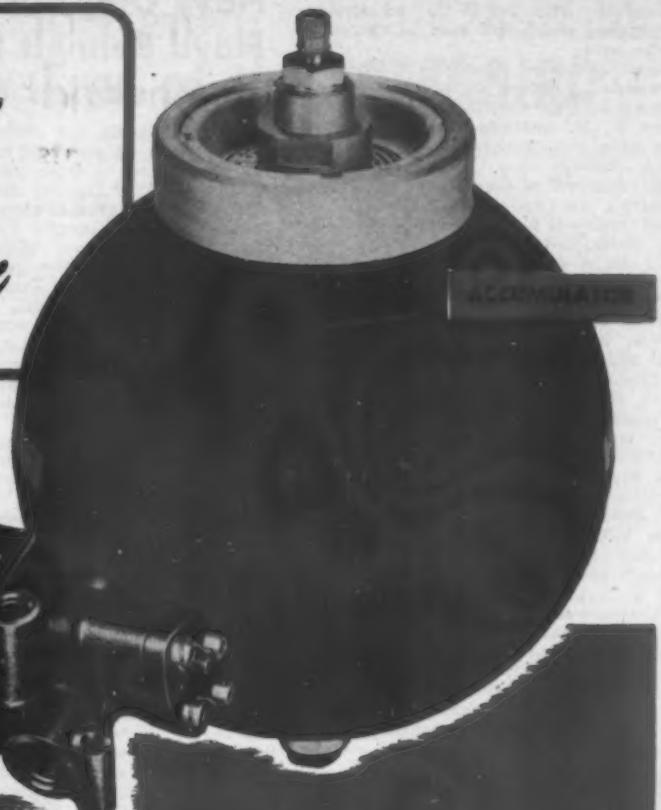
"Waterman's unwarranted attack on Chicago and Southern," C&S counsel said, " . . . appears designed to discredit Chicago and Southern's proven managerial efficiency and ability and the Board's own judgment with respect thereto." They asked the Board not to countenance Waterman's accusations against C&S ability to open its newly-certified Caribbean route by "dignifying" such charges with a hearing.

Competitors Object To PAA-Panagra Contract

The 99-year charter agreement signed earlier this month between Pan American Airways and Pan American-Grace Airways appeared to be headed for a legal struggle as attorneys for a number of other U. S. airlines certificated to serve the Latin American area appeared at a prehearing conference to register preliminary objections to the agreement. Airline representatives indicated that the contract to permit Panagra planes and flight crews to operate into the U. S. over the certificated routes of PAA might have a serious effect upon the competitive balance achieved by CAB in its recent Latin American Decision.

Gerhard Gesell, attorney for Panagra, and Henry J. Friendly, vice-president and general counsel of Pan American, explained that the agreement between their respective companies provided, by means of the equipment chartering arrangements, for a more flexible and adequate through service between the U. S. and points in Latin America. They declared that some such arrangement is necessary

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The Proven

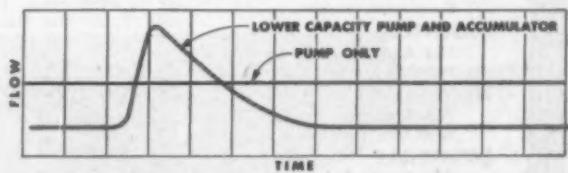
BENDIX-PACIFIC 3000 P.S.I. HYDRAULIC PRESSURE REGULATOR & ACCUMULATOR

This dependable combination is the proven answer for pressure control of 3000 P.S.I. systems. Lighter in weight and serviceable for longer periods, the Bendix-Pacific Regulator and Accumulator assure simplified system design. They provide means of supplying fluid flow and pressure when desired, yet relieve the pump of continuous operation. Lighter tanks of lower capacity which consume less power can often be used, since the Accumulator will supply the additional power requirements of peak system demand, as is graphically illustrated below.

The reliable, smooth operational characteristics of this new improved Regulator materially reduces shock strain in the system. The Regulator will handle high rates of flow. Quiet, positive operation is inherent and the cut-out pressure can be adjusted through a wide range.

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continuous past the equator. There are no flanges and bending moments are minimized. In addition, construction of the bladder provides for flexing over an extended area, prolonging service life. Long extended use of both the Accumulator and Regulator on thousands of military and commercial aircraft has demonstrated the outstanding advantages of this dependable combination. Detailed specifications of these and all other Bendix-Pacific hydraulic products are available on request.



Pacific Division

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TOMAS BENDIX AVIATION COMPANY INC., NEW YORK CITY*

EQUIPMENT FOR AIRCRAFT

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HYDRAULIC & ELECTRICAL

If the two companies are to compete successfully with the U. S. and foreign flag services which will soon be operating in the area.

Gesell indicated that the agreement represented, in effect, a "treaty of peace," between the Pan American and the W. R. Grace & Co. interests which for years have been at loggerheads over the basic policy question of a U. S. Terminal for added approval of the 99-year agreement Panagra's route. By implication, he added, approval of the 99-year agreement will mean that Panagra will not itself apply for a continental terminal during that time.

The presence at the conference of a representative of the Department of Justice, however, indicated that serious legal and policy questions were likely to be raised by the contract. Edward Dumauld, the Justice attorney, disclosed at the conference his Department, acting partially on the basis of information discussion with CAB held as long as five years ago, has been and is now giving active attention to a possible suit against PAA and Panagra under the anti-trust laws.

He intimated that the contract might possibly be a subterfuge to provide through service between the Canal Zone and U. S. points without a certificate of convenience and necessity, and stated that any widespread growth of this practice might nullify the Board's patiently constructed geographical route concept by permitting any carrier to operate over the routes of any other carrier with which it could secure suitable contractual arrangements.

Navy Offers Use Of Floyd Bennett Field To Scheduled Carriers

Airline officials are studying an offer by the Navy which would make available to the carriers a large part of the facilities at Floyd Bennett Field, Brooklyn. This would be another step in alleviating congestion at LaGuardia Field, according to New York Mayor William O'Dwyer who has inspected the base with Navy officials and requested President Truman to approve the proposal. Marine and Coast Guard personnel, stationed at the field would use facilities at the east end of the base while the city would take over the administration building and 12 hangars along the Flatbush Avenue side of the field.

Meantime, segregation of airline services into the New York metropolitan area during the coming winter in an attempt to ease traffic congestion, has been suggested by George E. Gardner, executive vice president of National Airlines. His proposal was made to the operations committee of the Air Transport Association.

Gardner proposes that LaGuardia Airport should handle arrivals from and departures to the segment from Buffalo, N. Y., due east and include all trans-Atlantic services. Idlewild Airport would handle all services due east and south including arrivals and departures from Washington and beyond. Newark Airport would handle services in the segment between Pittsburgh and Cleveland.

Under this plan, United, TWA and PCA would operate into Newark; American, Northeast, Northwest, Colonial and the trans-Atlantic lines would go into LaGuardia; and Eastern, National and American into Idlewild. Under the present alignment of schedules, about 77 trips would be put into Newark, 118 into LaGuardia and 55 into Idlewild, although many more schedules will be in effect by winter time. Through trips from south and east of New York into Boston would by-pass New York.

• The Board of Estimate of New York City has cancelled a contract involving construction of administration area facilities at Idlewild Airport, in an attempt to shave more than \$15,000,000 off the \$200,000,000 planned improvement program. Counsel for Delano & Aldrich, original architects, indicated they would sue the city for breach of contract. The firm is said to have already been paid a sum of \$234,296 toward a total fee which would approximate \$1,178,250 if the construction under the master plan had been followed through.

Army Attitude Holds Up Reading Progress

Reading, Pa., municipal airport showed a profit of \$4000 for the four-month period March-June, 1946, but plans to increase the popularity and revenue of the field have been stymied due to the attitude of the Army, Melvin H. Nuss, secretary-manager, reported.

The Army, Nuss said, refuses to relinquish its lease with the city of Reading covering all runways and landing areas. As a result, proposals for expansion and improvement of the field cannot be carried out, he said.

Nuss said that in its present state, with only a lunchroom seating 50 persons contributing to non-aviation revenues, the airport is showing a worthwhile monthly profit. Among expansion projects planned for the field are these:

Enlargement of the restaurant, addition of a cocktail bar and lounge, haberdashery, barber shop, tailor shop, drug store, ready-to-wear store, parking lot, service station and storage lockers.

The following table gives operating costs and income for the four-month period:

Month	Operating Cost	Income
March	\$ 8,424.45	\$ 7,214.88
April	10,415.35	10,065.76
May	12,507.18	14,062.19
June	11,518.64	13,868.35

University Acquires Parks Air College

Acquisition by St. Louis University of Parks Air College, aviation engineering school near E. St. Louis, Ill., was announced by the Rev. Patrick J. Holloran, S. J., president of the university. Oliver L. Parks will continue operation of the two corporations which he heads as president—Parks Aircraft Sales & Service and Parks Air Transport.

The university acquired complete ownership of Parks Air College by gifts and by purchasing all outstanding shares in the air school after Parks had transferred his holdings, amounting to more than 43%, to the university as a personal gift.

No substantial changes in the present curriculum offered at Parks are contemplated by the university at this time, it was announced. Parks will remain with the college as dean, serving without pay.

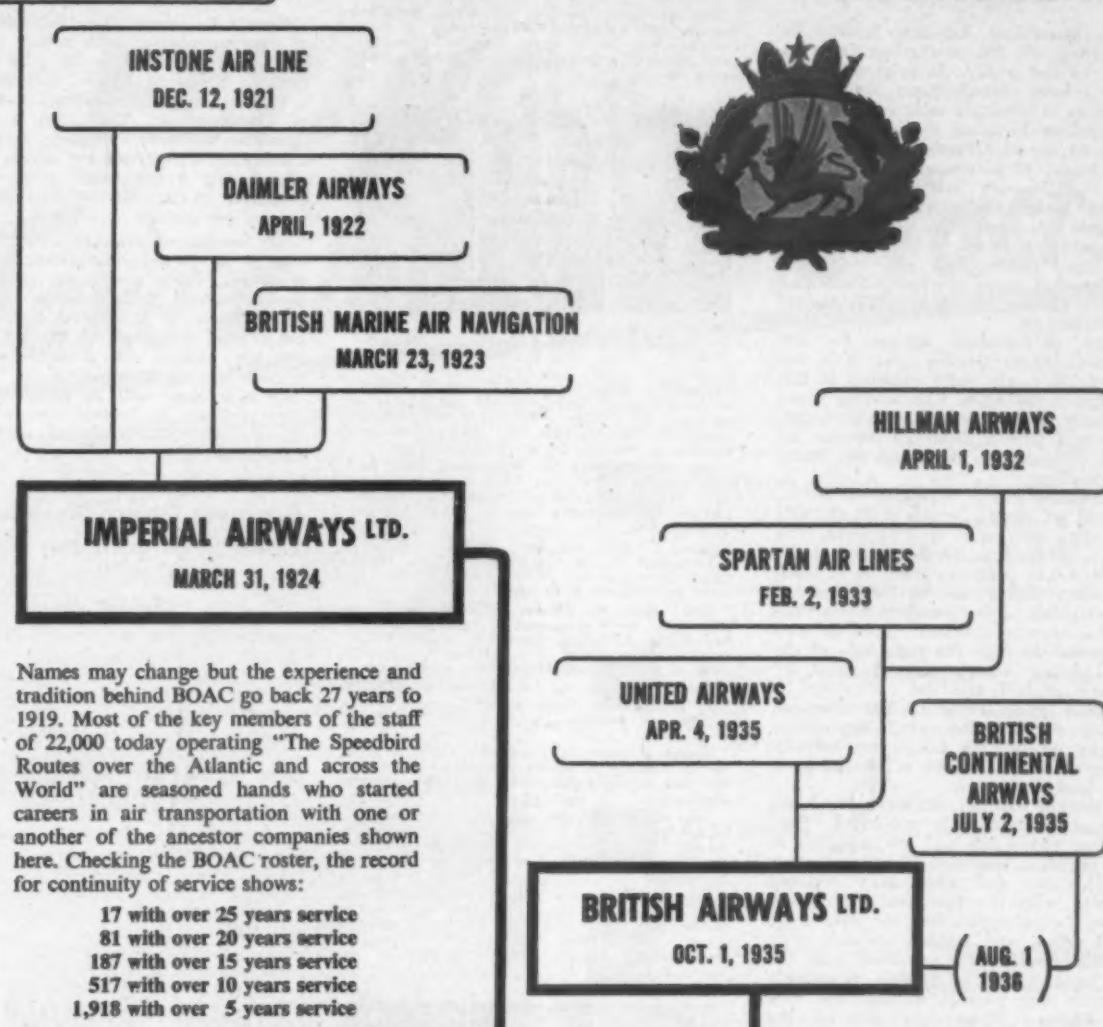
• The buildings at Hunter Field, Savannah, Ga., former AAP training base, are to be turned over to the state university system for housing and education of war veterans, according to a WAA announcement.



Paris Air Terminal—Pictured here is Orly Field, one of the world's busiest airports, which serves Paris. The field has a 6140-foot NE-SW runway, and a 5170-foot east-west runway. A third landing strip, running parallel to the east-west runway is under construction. Radio and navigational facilities are under control of the U. S. Army communications system. The tower has VHF and air-ground contact. Other facilities include an HF and VHF direction finder and a radio range. (ATC photo).

HANDLEY PAGE TRANSPORT
JUNE 14, 1919

Family Tree of the SPEEDBIRD



B·O·A·C

BRITISH OVERSEAS AIRWAYS CORPORATION
APRIL 1, 1940

For highlights of "The Speedbird Story" see the
B.O.A.C. ads each month in Time, Newsweek, New
Yorker, and alternate months in Fortune.

SPEEDBIRD SERVICE . . . Over the Atlantic . . . and Across the World

SeaBee Production Underway With Two Plane Output Daily

The long-awaited Republic SeaBee is now coming off the production lines at the rate of two a day. At least six demonstrators have already been assigned to distributors at strategic sales centers with other dealers awaiting delivery on the doorstep of the Farmingdale factory. Peak production of 40 planes per day is anticipated by January and between 1,000 and 1,500 planes are expected to be delivered yet this year. The current price of the amphibian is \$4,495 or \$350 extra with the Hartzell controllable and reversible pitch propeller. Sales are being conducted through a national network of 350 dealers and distributors.

Factory performance figures for the production model SeaBee give it a top speed of 120 m.p.h., with cruising at 103. The range is 560 miles. The landing speed is 38 m.p.h., with both ground and water, landing and takeoff distances reduced by the aid of hydraulic flaps and the Hartzell propeller.

The SeaBee has a wingspan of 37 ft., 8 in., and an overall length of 27 ft., 10 $\frac{1}{2}$ in. Landing gear span is 7 ft. 6 in. The height is 10 ft., 1 in. Gross weight of the amphibian has been weighed in at 3,150 lbs., with a useful load of 1,050 lbs.

Construction of the personal plane provides two roomy entrance doors as well as a special door on the right side of the bow. Landing wheels are operated by hydraulic control and the tail wheel is retractable and lockable. The Hartzell propeller permits downwind approaches to docks or landing buoys or actually backing off from beaches or obstacles on either land or water.

The SeaBee roomy cabin has a low noise level and is luxuriously appointed. Seat backs are removable and are designed to serve as life-preservers. The front seats are adjustable and when fully reclined they join with the rear seat cushion to provide a comfortable bed for two.

Dual wheel and rudder controls, with left side brakes are provided and the right hand wheel is quickly removable to permit easy passage through the bow door. Parking brakes are part of the standard equipment which also includes the basic CAA flight group of compass, altimeter, ball-bank and airspeed, two-way radio with tower and range frequencies, microphone, headphones and a complete set of engine instruments. Power is supplied by a 215 h.p. Franklin aircooled engine with electric starter.

The SeaBee has been designed with a low center of gravity and has a wing area of 196 sq. ft. Wing loading is 15.3 lbs. per sq. ft., and power loading, 14.2 lbs. per sq. ft.

Manufacturing Personnel

Jack N. Baird, president of British Aeroplane Engines, Ltd., Montreal, is sponsoring a North American tour of the Bristol Freighter. The company official is scheduled to travel with the plane during its visits to airports in this country.



Steppe Robbins Wright

Howard J. Silber has replaced Jean H. DuBisque as coordinator of advertising and public relations for Lear, Inc. Silber was formerly with the Burroughs Adding Machine Co. DuBisque is now director of aviation for the city of Dallas.

Brig. Gen. William W. Welsh has joined Fairchild Engine and Airplane Corp., as technical advisor to general manager Richard S. Bouffle. He was former assistant chief of Air Staff, Headquarters, AAF.

James E. Allen has been upped to executive vice-president of the Aro Equipment Corp., Bryan, Ohio. Announcement of the board decision was made by president J. C. Markey.

Capt. Willis E. Cleaves, USN, (retired), has taken over the management of the aviation sales department of Collins Radio Co., Cedar Rapids. A Navy officer for 22 years, Cleaves was assistant chief of naval communications for aeronautics.

Harry P. Nelson, eastern manager for Menasco Manufacturing Co., Burbank, Calif., is in charge of the new headquarters, Suite 630, Barr Bldg., Washington, D. C.

George C. Lentz has been named sales engineer for gas turbines by the Menasco Manufacturing Co. He was formerly associated with the General Electric Co.

Harry C. Robbins has been appointed materials department manager for Fairchild aircraft division, Dayton, O. A pioneer in the aviation industry, Robbins recently headed a firm of engineers and consultants.

John M. Wright has been named chief engineer for Culver Aircraft Corp. He was recently with Globe and North American engineering departments. Jack Steppé, formerly with Globe, has been named assistant general manager of the Culver firm.



Silber Welsh Baird



First Off The Production Line

Four new SeaBee's, shown ready for delivery to distributors and dealers. These and others are already being used as demonstrators at strategic points in the United States and Alaska.

Bendix Erects Plant To Build Helicopters At Stratford, Conn.

Bendix Helicopter, Inc., following a year of experimentation with rotary wing aircraft, has acquired a 30 acre tract of land at Stratford, Conn., and is erecting a factory building to afford a floorspace of 100,000 sq. ft. The plant is to be in operation by next February, according to a company announcement which also disclosed that a three-shift day would be employed to turn out 200 four-place helicopters per month.

Six helicopters are now under construction in an already completed building at Stratford. These are to be used for experimentation and demonstration purposes. Parts for the Model J, the contrarotator type, powered by Pratt & Whitney 450 h.p. engine, are already being produced by sub-contractors in the area. The new plant will be under the direction of Peter N. Jansen, v.p., who joined Bendix after 26 years of service with Curtiss-Wright.

Business Group Assumes Control Of Johnson Firm

A group of Texas and midwestern business men headed by L. D. Thomas of Ft. Worth, has purchased the controlling interest of the Johnson Aircraft, Inc., manufacturers of the Rocket, a personal aircraft type. Thomas, who was president of the Rocket Aircraft Sales Corp., national distributors of the plane, will serve in a similar capacity with the new organization. R. S. Johnson, former president of the firm, will remain with the new company in charge of research and development.

Other officials slated to serve with the personal plane organization are J. Kenneth Marr, executive v.p., Moody L. Young, chairman of the board and H. Wallace Sanders, sec'y-treas.

Another Setback For Lightplane Builders

Action by the Federal Reserve Board has resulted in a serious setback for the sales programs of lightplane manufacturers now that there has been reimposed a 12-month limitation on deferred payments on plane sales, involving an unpaid balance of less than \$2000. The order will directly affect the bulk of products in the personal plane field and will cover both new and used aircraft.

The Federal Reserve Board on July 5, relaxed its wartime anti-inflationary credit restrictions to permit the unlimited time sales on durable commodities involving deferred payments of more than \$1500. The restrictions were reimposed however when Board members became apprehensive over expanding inflation and a tremendous rise in consumer credit. The Department of Commerce has reported that consumers added \$200,000,000 to their debt in the first quarter of the year.

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Douglas Declares \$5 Dividend On Common Stock Payable Sept. 20

Douglas Aircraft Co., reported net income, after taxes, of \$2,610,261 or \$4.35 per share of common stock, for the first half of the 1946 fiscal year. Sales and billings during the six-month period total \$57,146,230, of which 60% were on commercial and military fixed price contracts.

During the comparable period in 1945, sales and billings amounted to nearly \$440,000,000, while net income was \$3,299,000. Backlog at the current fiscal mid-year period approximated \$162,000,000, with commercial orders accounting for more than half of this amount.

Douglas declared a dividend of \$5 per share on 600,000 shares outstanding to be paid Sept. 20 to stockholders of record Sept. 6.

• Ryan Aeronautical Co., reported net profit of \$349,710, equal to 80c per share, for the fiscal year ended Oct. 31, 1945. The report was delayed pending termination of war contracts. Value of products manufactured for the 12-months period was \$55,745,000. For the first half of the 1946 fiscal year, gross income was \$6,405,109. Book value of the company as of Oct. 31, 1945, was \$4,078,779, or \$0.39 per share.

• The Glenn L. Martin Co., declared a third-quarter dividend of 75c a share and announced reelection of all directors and officers. The dividend is payable Sept. 13 to stockholders of record Sept. 3.

• Parks Aircraft Sales & Service voted a \$200,000 expansion program. The company reported a gross of \$1,500,000 in the first six months of 1946 despite retarded delivery of aircraft. The company will improve its facilities with the \$200,000.

• The Aero Supply Manufacturing Co., has disclosed a loss of \$160,082.44 for the first six months of 1946. Net sales for the period total \$511,436.02 with the cost of the sales totalling \$326,332.71. Production tooling is underway for the company to begin the manufacture of wire recording devices. Other devices are being considered for manufacture by this firm which was also affected by a strike of employees, last July 22.

American Airlines Had Heavy Loss During First Half of 1946

Operations of American Airlines, Inc., for the first six months of 1946 resulted in a net loss of \$121,748.17, according to a company financial statement. Operations for the first four months of the year were also unprofitable with the ledger showing a loss of \$443,105.06. The months of May and June produced a profit of \$321,356.09.

Passenger revenue for the first half of 1946 showed an increase of 45.1% over the same period in 1945. Passenger revenues for 1946 were \$24,869,931.04. This year's freight revenue was also listed at \$641,264.29. Revenue from the transportation showed a decline of 50% under 1945 figures. The income, up to July 1, totalled only \$1,609,626.35 in this department. Decrease here was attributed to the fall off of mail to and from men in the service. The new 5c air mail rate, effective October 1, is expected to increase the poundage.

Operating expenses, due to training and introducing new type aircraft, were reported as substantial. General compen-

sation increases and institution of the 40 hour week also contributed to these expenses. The delay in delivery of new four-engine equipment was also listed as responsible for a considerable loss in potential revenue.

• Transcontinental & Western Air reported substantial improvement in operating results during the second quarter of 1946, with a net loss of \$117,968 for the period, compared with \$1,492,972 for the first quarter. Operating revenues reached a total of \$18,506,333 during the second quarter.

• American Overseas Airlines announced an offering of 1,049,895 additional shares of its capital stock for subscription to its stockholders at \$12 a share. Negotiable warrants good until Sept. 18 were distributed to stockholders of record Aug. 21 on the basis of one and one-half new shares for each share now held.

• American Airlines, Inc., agreed to purchase the 340,000 shares to which it is entitled to subscribe as a stockholder. American Export Lines, Inc., which is entitled to subscribe to 252,000 shares, is distributing its rights to its own stockholders of record Aug. 21, on the basis of one new AOA share for each five shares of stock of American Export Lines held Aug. 21.

• Securities and Exchange Commission granted National Aviation Corp., management investment house of New York, an exemption to the provisions of the investment company act to permit it to buy from the underwriting firms of Hornblower & Weeks or Paine, Webber, Jackson & Curtis 3000 shares of National Airlines, in addition to the 2300 shares of NAL the company already owns. The exemption was necessitated by the fact that two members of the board of National Aviation Corp., are partners in the underwriting firm.

• Pan American Airways Corp., directors have declared a dividend of 25c on outstanding capital stock of \$2.50 par value. The dividend, payable August 30, is for stockholders of record at the close of business on Aug. 16.

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Curtiss: Commandos, C-46s

Grumman: Goose G-21s, Widgeons

North Americans, Fairchild, Vultees, Stinsons, Wacos, Stearmans

Lockheed: Lodestars, Hudsons, Electras

Boeing: 247-Ds

Beechcraft: Commercial Model 18s,

Military AT-11s, AT-7s

Sikorsky: S-43s

ENGINES AVAILABLE

Pratt & Whitney: R-2800s, R-2000s, R-1830s, R-1340 and R-985 all series.

Wright: R-1820, R-975, R-760. all series.

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Air Board Examiner Recommends Merger Of PCA And Northeast

Chances for final approval by the Civil Aeronautics Board of the proposed merger of Northeast Airlines in to Pennsylvania Central Airlines are measurably brighter following a report by CAB Examiner Ross I. Newmann, who heard the case, recommending that the transaction be approved as entirely consistent with the public interest. Newmann found that the marriage of two companies which have historically emphasized the development of short-haul air traffic should mean the optimum development for this type of business in New England, at the same time creating a new and larger company better able to hold its own in the highly competitive New York-Boston market.

In a comparison of the book values of Northeast and PCA stock, which are to be exchanged on a two-for-one basis to accomplish the merger, Newmann found that the difference between the value of the PCA stock to be exchanged and the value of the assets PCA would receive represented a sum of \$435,000, a not excessive price to pay for such intangibles as Northeast's good will, going concern, route certificates, trained personnel and operating experience. After the merger, the report said, the Atlas Corporation, an investment company now holding 100,000 shares or 20 percent of NEA's outstanding stock would become PCA's largest stockholder with 50,000 shares representing a seven percent interest in the surviving corporation.

While unable to discover any large historical exchange of traffic between the two lines at their common junction point, New York, Newmann concluded that a merger of two systems serving contiguous regional areas would create many possibilities for new services which would make the merger definitely in the public interest. Operationally, he concluded that PCA could probably achieve lower operating costs than Northeast has been able to independently, and that the larger surviving corporation would be better able to absorb the seasonal fluctuations which mark the NEA operation. He also stated that PCA would probably be able to operate Northeast's routes at the .03 mill per pound mile mail rate PCA now receives, thereby saving the Government a substantial sum in subsidy mail payments which Northeast has required.

Newmann's report dismissed the objections of Transcontinental & Western Air, Eastern Air Lines, United Air Lines and American Airlines by pointing out that the diversion of business which they might experience would be such a small fraction of their total system business that it could not possibly outweigh the advantages of the proposed merger.

With respect to the bitter fight against the merger waged by Colonial Airlines at the time of the hearing, Newmann said: "Colonial offered no evidence to show that the merger would cause any diversion from its routes. Any diversion resulting from the merger would accrue to the surviving corporation simply through a higher degree of traffic development over the routes of Northeast, a factor scarcely inconsistent with the public interest."

Leading Aviation Securities New York Stock Exchange

(Courtesy of Burnham & Co.)

	1946		Range for 6 Days Ended 8/9/46		Range for 6 Days Ended 8/16/46		Two Weeks Net Change	
	High	Low	High	Low	High	Low	Not Chg.	
AIRLINES								
American Airlines	197%	145%	151%	135%	16%	135%	-	-
Brannif Airways	345%	231%	251%	241%	281%	235%	-	-
Eastern Air Lines	315%	251%	31	281%	281%	281%	-	-
National Airlines	347%	23%	271%	261%	287%	251%	-	-
Pan American Airways	561%	361%	44	421%	48	42	-	1
Trans-Central Air	37	17%	151%	10	187%	18	-	1/2
Trans & Western Air	48%	36%	401%	361%	391%	328	-	1
United Air Lines	71%	44%	521%	501%	513%	50	-	1/2
Western Air Lines	841%	351%	431%	401%	441%	403%	-	-
	35	201%	231%	221%	231%	231%	-	1/2
MANUFACTURERS, ETC.								
Aviation Corp.	141%	9	101%	81%	93%	61%	-	1/2
Aviation Corp., pf.	831%	51%	611%	59	60	59	-	-
Bell Aircraft	307%	271%	23	231%	231%	211%	-	-
Bendix Aviation	381%	23	26	231%	261%	24	-	-
Boeing	58	441%	48	481%	481%	481%	-	-
Cone, Vultee	35	231%	231%	28	297%	281%	-	-
Continental Motors	33%	231%	24%	231%	247%	241%	-	-
Curtiss-Wright	24	15	161%	151%	16	151%	-	-
Douglas Aircraft	121%	7	77%	71%	77%	71%	-	-
Grumman Aircraft Eng.	31%	101%	211%	201%	241%	211%	+	1/2
Lockheed Aircraft	108%	80%	90%	87%	88	851%	-	-
Martin, Glenn L.	521%	42	43	431%	421%	41	-	-
National Aviation	451%	37	40	391%	391%	391%	-	-
North Am. Aviation	28%	191%	22%	211%	221%	21	-	-
Republic Aviation	16%	121%	141%	141%	15	131%	-	-
Stearman	20%	131%	131%	171%	171%	171%	-	-
United Aircraft	37%	271%	291%	281%	29	281%	-	-
Wright Aero.	105%	83	90	881%	90	881%	-	-

New York Curb Exchange

	1946		Range for 6 Days Ended 8/9/46		Range for 6 Days Ended 8/16/46		Two Weeks Net Change	
	High	Low	High	Low	High	Low	Not Chg.	
AIRLINES								
Alaska Airlines	12	7	8	7	731%	7	-	1/2
Colonial Airlines	43	28	29	28	271%	261%	-	-
Northeast Airlines	21%	18	171%	171%	18	17	-	-
Pan American Air. war.	14	61%	71%	71%	721%	63%	-	-
MANUFACTURERS, ETC.								
Aero Supply 'A'	231%	203%	... 83%	81%	81%	81%	-	-
Aero Supply 'B'	73%	43%	431%	41%	81%	81%	-	-
Air Associates	231%	171%	171%	171%	171%	171%	-	-
Air Investors	83%	8	8	8	8	8	-	-
Air Investors ex. pt.	...	...	...	...	...	...	-	-
Airline Mfg.	121%	101%	111%	111%	101%	101%	-	-
Airline Mfg., pf.	221%	181%	181%	171%	171%	171%	-	-
Air Equip.	271%	231%	231%	211%	221%	221%	-	-
Bellanca Aircraft	91%	51%	6	51%	6	6	-	-
Breese Corp.	311%	231%	231%	231%	23	221%	-	-
Brewster Aero.	51%	41%	41%	41%	41%	41%	-	-
Cessna Aircraft	101%	61%	61%	61%	67%	67%	-	-
Fairchild C. & I.	177%	131%	141%	141%	14	131%	-	-
Irving Air Chute	21%	161%	161%	161%	161%	161%	-	-
Menasco Mfg.	131%	97%	97%	97%	1031%	101%	-	-
Northrop Aircraft	27%	41%	5	41%	47%	45%	-	-
Piper Aircraft	151%	107%	13	121%	125%	121%	-	-
Reed Metal Field	151%	78%	8	87%	9	85%	-	-
Ryan Aero.	101%	81%	71%	71%	7	67%	-	-
Solar Aircraft	22%	171%	211%	211%	211%	211%	-	-
United Aircraft Prod.	211%	181%	191%	181%	191%	191%	-	-
Waco Aircraft	91%	8	...	...	81%	81%	-	-

Over-the-counter Securities

	August 9, 1946		August 16, 1946	
	Bid	Asked	Bid	Asked
AIRLINES				
Air Cargo Transport	37%	41%	37%	37%
All American Aviation	75%	8	75%	75%
American Airlines, cv. pf.	98%	981%	981%	981%
American Overseas Airlines	171%	181%	17	18
Chicago & Southern Air Lines	193%	201%	18	19
Continental Air Lines	191%	201%	183%	193%
Delta Air Lines	411%	461%	44	451%
Eastern Air Freight Corp.	81%	81%	81%	81%
Expresso Americano	21%	211%	211%	211%
Flamingo Air Services, Inc.	...	...	...	...
Flying Freight, Inc.	13%	2	131%	21%
Great Circle Airways, Inc.	91%	101%	91%	101%
Hoosier Air Freight Corp.	34%	33%	34%	34%
Inland Airlines	3	31%	3	31%
International Airlines, Inc.	23%	3	23%	23%
Island Air Ferries, Inc.	181%	181%	181%	181%
Lake American Airways, Inc.	21%	211%	211%	211%
Mid-Continent Air Lines	21%	211%	211%	211%
National Skyways Freight Corp.	21%	3	21%	21%
Public Flyers, Inc.	24%	...	24%	...
TACA Airways	101%	11	101%	101%
Trans Caribbean Air Cargo Corp.	23%	3	23%	3
U. S. Airlines, Inc.	21%	211%	211%	211%
MANUFACTURERS, ETC.				
Aeronautical Products	81%	7	7	71%
Aerovac	143%	151%	14	141%
Aircraft & Diesel	13%	2	13%	13%
Airplane & Marine	16	161%	...	16
Central Airports	2	...	2	...
Columbia Aircraft	13%	17%	131%	131%
Continental Aviation Eng.	41%	5	41%	41%
General Aviation Equip.	33%	3	33%	33%
Gladwin Products	27%	21	271%	271%
Glacier Aircraft	4	41%	33%	33%
Marie Aircraft	14	141%	14	141%
Narvill Corp.	33%	38%	33%	33%
Interstate Aircraft & Eng.	11	12	101%	111%
Kellett Aircraft	47%	51%	48%	48%
Lear, Inc.	31%	32%	31%	32%
Liberty Aircraft	32	221%	221%	221%
Lucombe Airplane	23%	231%	231%	231%
McDonnell Aircraft Corp.	...	...	...	...
Pacific Airmotive	111%	121%	111%	111%
Pollack Mfg.	17%	181%	171%	181%
Standard Aircraft Prod.	23%	3	33%	33%
Taylorcraft	25%	27%	41%	41%
Timm Aircraft	31%	311%	3	31%

Operations and Maintenance Review

Including

COMMUNICATIONS—NEW EQUIPMENT—AIRPORTS

CAA Moves to Control More Materials and Accessories

Claim Program Would Require No Additional Personnel

A PROPOSAL to extend federal control (type certification or CAA approval) to include many more aircraft components, materials and accessories, is now receiving advanced study in Washington. A draft of the plan, listing items to be controlled and the extent to which government ok would be required before installation, is being circulated throughout the industry for comment. CAA's stated purpose in proposing to assume jurisdiction over certain plane parts now free of controls is to insure minimum safety standards for parts and materials, and to clarify the status of existing government-industry standards and specifications.

If the program is approved for further action, the CAA expects to recommend to the Civil Aeronautics Board appropriate changes in Civil Air Regulations which would add seven new items to the list of 12 now requiring type certification. In addition, the 14 items of equipment for which specific CAA approval, but not type certification, is required would be increased to a total of 51 items.

Industry officials, apparently opposed to the principles of the plan, contend that the program could not be placed in effect and enforced unless CAA increased its Washington engineering staff three to five times its present size, and its field inspection organization 15 to 20 times. On the other hand, the CAA holds that it can administer the whole new program, without any staff increases, by widespread utilization of industry technicians designated to serve as inspectors.

Items suggested for immediate addition to the type certification list are: (1) turbo superchargers; (2) fuel burning heaters; (3) life rafts; (4) life preservers; (5) landing lights; (6) automatic pilots; (7) instruments required under instrument flight rules, including altimeters, airspeed indicators, magnetic direction indicators, gyroscopic attitude instruments, rate of climb indicators, air-speed tube assembly, and gyroscopic directional instruments.

The above items are proposed as meeting five criteria adopted by the CAA for determination of items for which type certification is desirable. CAA's requirements are that to receive a type certificate an article or product must: (a) have definite and important bearing upon safety; (b) have widespread applicability; (c) be a complete unit in all cases so that the unit can be fully defined; (d) be sufficiently complex to warrant and demand careful appraisal; (e) be of such nature that the CAA is warranted in requiring type certification of all such articles used on certified aircraft or at least on one or more categories of type certificated aircraft.

Parts and materials not listed for immediate type certification, but proposed for addition to the CAA "Acceptable Products Listing" are grouped in four main categories in CAA's request for industry comment. Each was selected on the basis of one or more of the criteria, but in any case falling under terms (a) and (b). Items for which specific approval is proposed are:

(1) Equipment, including structural, such as brakes, control wheels, actuating devices, hydraulic shock struts, oxygen equipment, control cable fittings, cowl and fairing fasteners, seats and berths, cargo tie-down fittings, and ignition-resistant upholstery materials.

(2) Power plant accessories and fittings, including fire and smoke detectors, oil radiators, fuel pumps, fluid control valves, fuel strainers, coolant radiators, intercoolers, carburetor air filters, primers, oil filters, starters, ignition switches.

(3) Electrical and radio equipment, swaged cable terminals, circuit breakers, electric cable, relays, switches, position light flashers, generators, generator control boxes, batteries, electric motors and inverters.

(4) Instrument (other than those listed for TC's) such as fuel and oil pressure gauges, manifold pressure gauges, hydraulic gauges and tachometers.

Protest CAA Plan For Auxiliary Lighting

Plans of the CAA to require that an auxiliary power source be available for lighting at all airports served by scheduled air carriers, have been protested by the carriers themselves through the Air Transport Association. The CAA proposal, when presented to the industry for comment, was intended to be placed in effect within six months after official termination of the war.

The Air Transport Association has estimated that enforcement of the regulation would mean suspension of night contact and day and night instrument operations into two-thirds to three-fourths of all cities now served by the airlines under such conditions, unless expensive auxiliary power supply installations could be made in accordance with the CAA's interpretation of what constitutes an adequate power supply set-up.

Airline attitude expressed by the ATA indicated a belief that no airline accidents have resulted from failure of normal power supply at airports, and that there now exists adequate protection against such emergencies through use of alternate airports or emergency landing fields.

CAA officials have indicated that they are unlikely to give favorable attention to the ATA request for reconsideration unless positive evidence is produced to show that the CAA proposal is not required in the interest of safety.

Northwest Mechanics Denied Pay Increase

Under a recent opinion of President Truman's Emergency Board, members of the International Association of Machinists employed by Northwest Airlines were denied pay increases and certain other benefits which had been refused by the company. The Board turned down applications for flight test bonuses, and for improvement in vacation, sick leave and longevity benefits, but recommended a plan for modified license premiums and approved a request for shift premiums. It also recommended increased casualty insurance.

Basis of the Board's refusal of wage demands was the contention that NWA workers already had received increases and hours-of-work adjustments sufficient to compensate for living costs and reduction of take-home pay. The White House announcement of the decision indicated "that the mechanics on this line were the highest paid of any of the airlines and that the increases experienced by them were greater than employees of the same craft on the railroads." Average NWA mechanics earnings were said to be \$55.48 per week for skilled employees and \$33.88 for unskilled.

The Board made reference to the fact that IAM's predecessor union at Northwest had brought about a 20 cents an hour increase last December, and rapped the union for taking strike action against Northwest early in July while negotiations were still in progress and before the question of wages had been discussed.

CAB Circulates Part 09 Of Civil Air Regulations

The Civil Aeronautics Board's Safety Bureau has prepared and is circulating to the industry a draft release of a proposed Part 09 of the Civil Air Regulations setting up a new category of aircraft airworthiness to be known as a limited or NL category. The new part 09 is designed as a means of certifying surplus military aircraft but contains a restriction that any plane certificated under the NL category may not carry cargo or passengers for revenue or hire.

The suggested regulation provides a different method for determining the airworthiness of a model than the normal procedure of testing compliance with the airworthiness requirements of Parts 03 and 04. Under Part 09, if adopted, NL certificates will be issued if the aircraft is of a make and model which has been manufactured for and accepted by the military forces; if it has a safe record of operation in military use; and if the plane has no characteristic which would make its use as a civil aircraft unsafe. To qualify in the NL category, planes may not be of a make or model which is basically the same as an aircraft for which a type certificate is now in existence.

Visibility is Measured By CAA Electronic Device

Would Eliminate Guesswork
By Weather Reporters

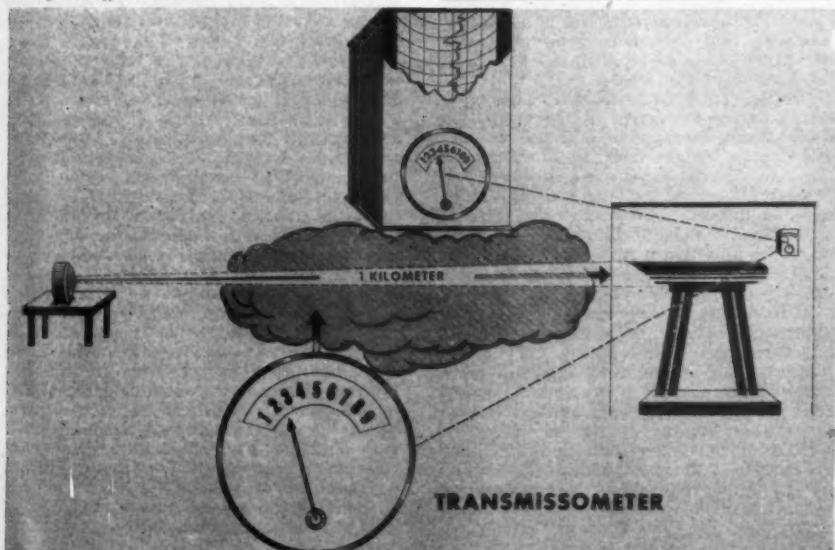
ONE of a number of items recently sponsored and tested by the CAA Experimental Center at Indianapolis is a mechanism for obtaining exact rather than guesswork figures on horizontal visibility at airports. It will enable control tower operators to tell incoming pilots within fractions of a mile how far they can see when coming in over the runway, and it should add considerably to both safety and efficiency in traffic control operations.

Called a Transmissometer (it measures the transmissivity or light transmission characteristics of the atmosphere), the new device consists of a fixed light source of established intensity, a photo-electric cell at a measured distance from the light, and a remote indicating dial in the control tower. The electric eye detects the exact amount of light penetrating the atmosphere and records this penetration or light intensity as miles of visibility.

The Transmissometer operates automatically and continuously, enabling the tower operator to obtain visibility at a glance whenever required for routine weather reports or special broadcasts to planes. It also clears the operator of responsibility for relying simply on experience and instinct in deciding whether to close the field or leave it open under near-minimum visibility. (See photo below).

CAA officials, in announcing that the device is ready for commercial application, express hope to it will do away with the prevalent "system" of reporting visibility in terms of an operator's ability to discern airport landmarks such as trees, buildings, poles and runways at vaguely established distances.

A companion instrument, for measuring visibility ceilings and the height of cloud bases above the ground, is receiving study at Indianapolis but is not yet considered ready for general use.



New Paint Jobs—Following announcement that new contracts have been signed with four major oil companies, TWA has called for a new color scheme and design arrangement on approximately 100 trucks which will be used for refueling Trans-World planes. TWA lettering will be red on white, with oil company insignia on the lower portion of the truck in gray and white. New contracts call for Standard Oil of New Jersey to service TWA stations from Cincinnati east; Shell Oil Co. will cover the area between Detroit and St. Louis, Phillips Petroleum Co. from Kansas City to Albuquerque, and The Texas Co. from Winslow, Ariz. to the coast.



Douglas Refrigeration—A new type refrigeration unit, developed by Douglas Aircraft Co. and recently placed in service on a C-47 cargo ship operated by Santa Fe Skyway, Inc., is shown being checked by Douglas engineer Ed Wilkes. Alcohol is mixed with dry ice in tank at bottom of the unit until cooled to a temperature of minus 120 degrees F., and is forced by an electric pump through coils at top of unit. A blower behind the coils forces air through cargo compartment at controlled temperatures from 70 degrees down to 32 degrees F. With the 300 pound mechanism and added weight of fiberglass insulation and V-board cabin liner, a refrigerated payload of 5,500 pounds is carried.

PAA Modifies Planes To Fit Requirements Of Latin-American Users

A unique job of transport and cargo aircraft conversion, in which virtually every plane must be tailor-made to the unusual requirements of its Latin American user, is in full swing at the Brownsville, Tex., shops of Pan American Airways. The planes, ranging from C-54's to PBY's to twin-engine Cessnas, are being converted for various Latin American affiliates of PAA and will be used for everything from shuttling back and forth across the high Andes to carrying on jungle air commerce along little known rivers in the South American interior.

By working overtime and double shifts, the Brownsville shops are completing better than four planes a month for service south of the border. Upwards of 50,000 man hours per month are going into sheet metal and other production work, and a similarly high total is being spent for engine and accessory overhaul, interior outfitting, and inspection and testing.

Except for a certain amount of conventional work on C-54's and C-47's, there has been little opportunity for standardization at Brownsville. Most planes, even of identical types, have had to be torn down and then custom-built into out-of-the-ordinary arrangements. Avianca has had two PBY's rebuilt with passenger freight interiors and wide cargo hatches for service up the Magdalena River. Panagra has required special oxygen outlets at all passenger seats. Several operators have called for removable seats and for unique and sometimes difficult cargo-passenger interior arrangements.

Although most domestic conversion centers have long since been able to achieve a production-line routine, and some have passed the peak of customer demand, Pan American reports new problems with every job and no let-up in the demand for more planes in Latin service.

Product Literature and Booklets

Supt. of Documents, Government Printing Office, Washington, D. C., now has available, reprints of two important sections of Civil Air Regulations. They are Part 61, "Scheduled Air Carrier Rules," including amendments up to August 1, at 10c per copy; and Part 41, "Certification and Operations Rules for Scheduled Air Carrier Operations Outside the U. S.," with amendments effective to May 1, 5c a copy.

James C. Fahey, editor of "The Ships and Aircraft of the United States Fleet," has published a 65-page booklet, "U. S. Army Aircraft 1908-1946," containing pictures and information on military aircraft from the earliest model to the latest mentionable jet and rocket planes developed by the Army. The data on each plane includes the builder and model designation, year of the first order and delivery, number procured or converted, crew, plane type, gross weight, wing span and length, the number, builder, model and horsepower of the engines, and the top speed. Copies sell for \$1 and are obtainable at Ships and Aircraft, 1265 Broadway, New York.

IATA Conference Discusses Standards and Practices

Technicians Urge Adoption Of one Measure System

THE International Air Transport Association (IATA) held its first Technical Conference in Stockholm, Sweden, convening July 16 and continuing for more than three weeks. The meeting was the largest gathering of international airline technicians ever held, according to IATA officials. Over 100 experts in various technical fields represented 21 airlines, chiefly from Europe and North America.

Some of the most important recommendations adopted were: mandatory installation of instrument landing systems and high intensity runway marker lights at all international airports; use of ground radar for air traffic control; pooling of international communications facilities; establishment of special upper level flight safety regions for long-range services.

Most of the discussions centered on the proposed standards and recommended operating practices drawn up by the Provisional International Civil Aviation Organization (PICAO) and results of the Stockholm meeting have been sent to PICAO for consideration.

The conference also urged that some decision be reached soon between the English and the metric systems of measurement. PICAO has been studying this problem for a year without making any recommendation other than further study. The airlines are greatly concerned about this matter but feel that action must be taken by government to be universally effective.

Most of the detailed work was carried on in eight subcommittees: airline operating practices; airways, airports and ground aids; communications; aeronautical maps and charts; meteorology; personnel licensing; air traffic control; search and rescue. Some of the subcommittee proposals were:

Air traffic control: Separation of air traffic should be the responsibility of government but operators should control flights and landing matters through the pilot or through ground officials. Low ceiling flight rules should be simplified.

Airports and ground aids: New and larger landing facilities should be planned to accommodate larger and heavier aircraft. This recommendation runs counter to the view of PICAO which has urged some limit on gross weight of aircraft to avoid the necessity of continually expanding airports and runways.

Communications: In addition to recommending the pooling of international communications facilities to meet the common needs of international airlines, this subcommittee reached agreement on some minimum standards for airborne radio equipment.

Personnel licensing: Some certificate of competence should be required universally for meteorologists, ground radio operators, and other ground personnel, as well as for pilots and air crew.

Maps and charts: Charts for standard approach systems at each international airport should be drafted after agreement between airlines, rather than laid down by PICAO.

Meteorology: Route service systems should be classified on the basis of type of meteorological service provided, rather than by the

present PICAO system based on distances and routes. The Conference approved with some modifications, the new international code recently proposed by the International Meteorological Organization at Paris.

Search and rescue: Governments should be responsible for surface search and rescue operations and the airlines for the types of equipment to be carried on board aircraft.

Operations—Maintenance Personnel



Sorensen Lynch Shaw

Mark J. Maidel will serve as U. S. regional operations manager for Scandinavian Airlines System, with offices at 270 Park Ave., New York. During the war Maidel was in charge of B-29 maintenance for the 21st Bomber Command.

Irving "Tom" Billheimer moves from his chief operations desk at Detroit to become Elmira, N. Y. manager of operations for American Airlines. He has been with American for ten years, with time out for service with both the Army and Navy.

Merrill Manning, Jr., has assumed duties as senior transit coordinator for Pan American Airways Atlantic division, at LaGuardia Field. He has served in various capacities with PAA, abroad and in this country since 1942.

Capt. Wilbur W. Lynch, veteran PAA pilot and communicator, has been named Latin American Division communications superintendent for Pan American. Based in Miami, Lynch will supervise the company's 50,000 mile network in Central and South America.

Carl E. Shaw, a radio and communications specialist formerly with TWA, has joined the flight service department of Continental Air Lines as supervisor of communications.

Edwin Sorensen has been appointed station manager for PAA at Washington. Sorensen has served in various capacities with PAA at LaGuardia Field and abroad.

A. L. Bland is PCA's new district general manager at Asheville, N. C. He was formerly manager of ground operations.

Hugh Herndon, round-the-world pilot with Clyde Pangborn and a veteran over-water flier, has been named chief pilot for TWA's middle east region. Herndon's new headquarters are in Cairo.

Capt. Warren B. Smith, veteran Panagra pilot, recently was honored in Santiago, Chile for completing his 1500th crossing of the Andes.

A. J. Eggiman, who joined TWA as an apprentice mechanic in 1936, recently was appointed superintendent of flight engineers for the company's midwest region. Eggiman has served with the Intercontinental Division and has represented TWA at the Boeing and Lockheed plants.

W. E. Curtis of Chicago & Southern has been promoted from Detroit station manager to assistant superintendent of stations. Other new C & S station manager assignments include James E. Wall at Detroit, John Willey at Toledo and A. J. Mohr at Paducah.

Warren Davis is now United Air Line's assistant station manager at Washington National Airport.

New operations assignments in American Airlines include Theodore C. Kepner as manager of operations at New Haven, and E. V. Fox in a similar capacity at Abilene.

Frank Langenfeld, assigned to Philippine Air Lines for radio installation work, has become flight superintendent for the line in Manila.

30 Hour Check

By DAVID SHAW

Added evidence that the durable DC-3 is likely to go out of service, regardless of useful life, as soon as more economical equipment is available to replace it: UAL personnel have been informed that employee suggestion awards will not be made, except in unusual instances, for ideas toward alteration of the DC-3 for easier maintenance or better operation. United explains that it would not be economical to put such ideas into effect in view of plans to "gradually retire" such equipment.

It appears that some realist in the industry has gone off in a corner and given serious reflection to the weight, cost and wear of pneumatic tires on planes. His thinking seems to have led to tests demonstrating that air in tires absorbs only a fraction of the impact force which modern shock absorbers can handle. Result: light, long-wearing hard rubber tires are being used instead of pneumatics on some fighter planes and helicopters. We have heard no opinion on whether they will be found practical for passenger-carrying aircraft.

Down in Central and South America, Pan American has some off-base maintenance and replacement problems of more serious proportions than along U. S. routes. Upset schedules, inconvenience to passengers, and loss of revenue has resulted from mechanical difficulties grounding flights at out-of-the-way points. Having found it impractical trying to get replacements and repair crews to stranded planes by means of the next scheduled flight, Pan Am's American Division has fitted out a wide-door C-47 as the flying counterpart of the automobile wrecking truck. It is kept on call with a couple of four-man crews in Miami, ready to sail forth with any needed equipment up to completely assembled replacement engines. On several occasions the wrecker has gone out with two engines in the cargo hold, carried out quick engine changes in planes at widely separated points, using tools and equipment carried in the plane, and returned with the old engines to be overhauled at Miami.

United Air Lines has replaced trailing wire tail-cone static type static dischargers with a series of small "whips" trailing from wing and tail surfaces. The new type static eliminators, widely used by the Army and Navy, are made of ten-inch strips of cotton rope, impregnated with a silver compound for conductivity, and encased except for the last inch or so in a plastic tube. Chief advantages over the trailing wire tail-cone static eliminator is reported to be longer service and less frequent replacement.

In case pilots who read our item a few issues back about bird-proof windshields got the impression that a bird simply bounces off the wind-shield we wish to urge against simultaneous tackling of more than one bird. With the new glass you needn't worry that a fowl will come through and mess up your physique or your clean uniform, but you should be aware that visibility through a struck windshield becomes absolutely zero, and a chance collision against both right and left windshield panels would make it necessary to bring the ship home with your head out the side panel. Furthermore, the glass is not 100 percent shatterproof. It cracks into thousands of small pieces on impact and although most of them stick to the plastic center panel, there is a chance that a few pieces will fly back far enough to cut your hands.

New Equipment

Lightweight Rotary Actuator

Designed for aircraft and other actuating requirements calling for low weight and relatively high output, this Lear Model 181 midget rotary actuator weighs 0.75 pounds with limit switches and AN connector. Loads range from 0.1 to 15.0 pound inches, and speeds from 2.5 to 375 r.p.m. Output ratings vary from 0.4 to 15 watts at 24 volts direct current. Actuator incorporates a "G" frame motor of intermittent duty, split series or single field type, for either reversible or continuous rotation. Four standard gear reductions are available. Lear, Incorporated, Grand Rapids, Mich.



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Ten Ton Aerojack

This all-purpose, hydraulically operated jack can be extended from basic height of 56 inches to a maximum of 112 inches with the component high adaptor cap shown at right. Without cap the jack extends to 95 inches. Tripod legs feature spring loaded casters for easy mobility. When load pressure reaches approximately 1,000 pounds the casters retract placing the jack squarely on the ground. Additional information obtainable by addressing Dept. H, Airquipment Co., Burbank, Calif.



Goodyear Aircraft Brake

Rapid heat dissipation because of open construction, and automatic adjustment which eliminates need for periodic checking, are features offered in this single-disc brake developed by the Aviation Products Division of Goodyear Tire & Rubber Co. The brake, now in use on several military planes, is being produced for land-planes of all sizes.



Fire Resistant Wire



Neolay, an aircraft wire insulated with glass fiber and dipped in a fire resistant synthetic rubber, has been announced by United States Rubber Co. Shown here being held over an open burner to demonstrate flameproof characteristics, the wire is claimed to be 30 percent lighter and 15 percent smaller in overall diameter than conventional electrical wire. Weight savings as great as 300 pounds are reported possible on large 4-engine planes.

180 cu. ft., and will carry up to one ton. Side rails pull down to provide seats for ten people. Fifty-miles-to-the-gallon is reported for the Indian motorcycle when pulling ordinary loads. The combination is sold by Peters Bros., 609 Hart St., Brooklyn, N. Y.

New Small Plane Relay

Leach Relay Co., aircraft relay manufacturer located at 5915 Avalon Blvd., Los Angeles 1 is offering a new eight and one-half ounce direct current solenoid type relay for feeder-type and personal planes.

Type 7064-534 has intermittent duty coils for motor starting, and type 7064-534C is supplied with continuous duty coils for battery switching, motor control, radio switching and lighting. Power consumption is listed as 15.12 watts for intermittent and 5.23 watts for continuous duty.

Contacts are three-eighths inches diameter and rated at 100 amps on 12 volts DC or 75 amps on 24 volts DC. Contact arrangement is SPST, double break, normally open.

Container for Hot Meals

This 'Mealpack' insulated, double-seal container offers applications both for serving hot meals to passengers in flight and for feeding shop or office employees not having access to regular commissary facilities. The container itself is intended to keep foods hot up to three hours after packing. For longer periods, thermostatically controlled holding cabinets can be used.

Each meal is packed in a blueplate dish of ovenware glass, sealed with a laminated

Dry Sealing Insulator

Buchanan Associates, Inc., 220 E. 42nd, New York 17, has announced a fast drying synthetic resin base insulating solution resistant to heat, moisture, salt spray, oil and corrosion. It is intended for protection of motors, coils, magnetos, ignition systems, dynamometers, generators, batteries and other electrical equipment, and can be applied either with brush or spray. Dielectric strength of a one mil film is 1030 volts.

Airport Motorcycle-Trailer

Air Freight, Inc., non-scheduled carrier based at Newark airport, is using this motorcycle-trailer combination for cargo pick-up and delivery and for personnel transportation and general errand service around the field. The trailer, which is equipped with vacuum brakes, weighs 900 pounds, has a capacity of



aluminum foil closure lid, and covered with a locking top. Loss of flavor and moisture is prevented by the double seal. Closure and lid design prevents spillage and intermingling of foods or juices. Provision is made for packing cutlery and napkins within the container, and for indicating contents on a small disc inserted into the lock.

Additional information on the container, and on holding racks, hand carriers, prolonged heating cabinets, mobile canteens and other components of the Mealpack system, may be obtained from Mealpack Corp. of America, 152 W. 42nd, New York 18, N. Y.

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Connie Makes Three-Engine Transcontinental Hop

Pictured coming in for a perfect landing at Lockheed Air Terminal, Burbank, Calif., is the Pan American Airways Constellation "Clipper America," which flew from MacArthur Field, N. Y., to Burbank in 11 hours, 37 minutes without the No. 4 engine.

This was the Pan American Constellation which made a forced landing at



Williamantic, Conn., after the No. 4 engine caught fire and dropped out. The aircraft was ferried to the West Coast to repair damages sustained in that accident.

The CAA issued a special flight certificate to permit the aircraft to make the flight on three engines. The ship was piloted by Joe Towle, chief pilot for Lockheed Aircraft Corp. A section of dural fairing was installed on the right wing to cover the spot usually occupied by the No. 4 engine.

Three take-offs at a gross weight of 74,000 pounds were accomplished on the transcontinental flight. Towle said cruising speeds comparable to those used in over-ocean cruise speeds were maintained on the special trip.

Automatic Throttle To Aid Helicopter Pilot

Improvement in the flight characteristics of helicopters through development of a constant speed rotor control, which materially reduces the complexity of helicopter flying was announced by Cornell Aeronautical Laboratory.

The equipment automatically accelerates or slows down the helicopter engine by means of specially designed hydraulic and electronic apparatus so that the craft can

maintain flight equilibrium in changing windstreams and densities.

Cornell engineers said this task formerly demanded the full attention of the helicopter's pilot, who had to throttle the engine manually to cope with fluctuating wind conditions. Throttle adjustment has now become completely automatic.

Cornell engineers said further that the constant speed rotor controls would have the effect of reducing accident hazards considerably in the future. The device will be used in both Bell and Army helicopters.



Dolly for Close-Packed Hangar Storage

By using this new "Tip Park" dolly for them into hangars, storage revenues can be increased considerably. Users are reported able to get more planes under a roof, and get them under in less time with fewer men. Tests have shown that two men can hangar 30 planes in 30 minutes, and the dolly can be operated by one man if necessary. The three steel casters have rubber tires and roller bearings for easy handling and for stability when holding plane. The Tip Park Dolly is manufactured and sold by the La Ray Engineering & Equipment Co., 1029 N. 7th St., Milwaukee 3, Wis.



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portation expense paid by company. Employment out of U. S. has many advantages! For details contact Manager, Foreign Department, POSITION SECURING BUREAU, INC. (Agency) 45 John Street, New York 7, N. Y.; Telephone Cortlandt 7-9650. All inquiries treated confidentially.

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